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2003 PIG COST OF PRODUCTION IN SELECTED EU COUNTRIES

BPEX
British Pig Executive

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CONTENTS

INTRODUCTION

This report is the third in a series, now being produced annually, which examines the relative costs of pig meat production in selected EU countries. The scope of the report is just one part of the supply chain, specifically the cost of production up to farmgate level. Competitiveness is the totality of all the elements in the supply chain, eg abattoirs, processing and retail distribution, and it is equally important that progress is made in improving efficiency throughout all these elements of the supply chain.

Since the last report there have been a number of changes in the European pig sector. Most significantly, the European Union was enlarged on 1 May to include 10 new member states, which collectively added about 40 million pigs, 20 per cent, to annual EU production. There has also been an increasing trend towards international ownership, as exemplified by the move of the American companies, Cargill and Smithfield, into Europe and by the takeover of Dalehead in the UK by Danish Crown.

At the time of writing, implementation of reform to the Common Agricultural Policy is imminent. From 1 January 2005, the Single Farm Payment will replace production-based subsidies. While these reforms will have more of a direct effect on the cattle, sheep and cereal sectors than the pig sector, they could change the collective mindset of the agricultural sector. Producers are more likely to examine the actual costs and market returns from different enterprises and production systems before making investment decisions.

Taken together, these three developments make it essential that the British pig industry has a clear understanding of its current position, relative to other EU competitors, in terms of both its technical and financial performance. This is central to identifying and accurately quantifying areas of weakness that must be addressed, such as the deterioration in UK self-sufficiency, and strengths and opportunities that can be further exploited.

The data presented is the result of collaboration between a number of pig organisations within the EU. The British Pig Executive (BPEX) has established an informal network between leading EU pig institutes and organisations to facilitate the exchange of data from national recording systems.

Two new countries have provided data for this report – Austria and Sweden. It is intended that the network will be extended by the time of the next report (to be published in December 2005) to include other countries. The new EU member states in Eastern Europe have become very important to the EU pig meat sector, and we have identified participants in Hungary and Poland who will contribute data to the 2005 report.

METHODOLOGY

This report is the third in a series that examines the relative costs of production in selected EU countries. In addition to examining the differences that existed in physical and financial performance measures in 2003, some time series analyses are now possible.

This was a joint project involving the following organisations and countries:

- Great Britain – British Pig Executive
- Austria - VLV Upper Austria
- Denmark – Danske Slagterier
- France – Institute Technique du Porc
- Germany - Institut für Betriebswirtschaft (FAL), and Interessengemeinschaft der Schweinehalter (ISN)
- Ireland – Teagasc Rural Economy Research, Dublin
- Italy – Centro Ricerche Produzioni Animali
- Netherlands – LEI(University of Wageningen), and PVE
- Spain – University of Murcia
- Sweden – LRF Konsult

Swedish and Austrian results are available for the first time, and so there are no comparisons with earlier years available for these countries.

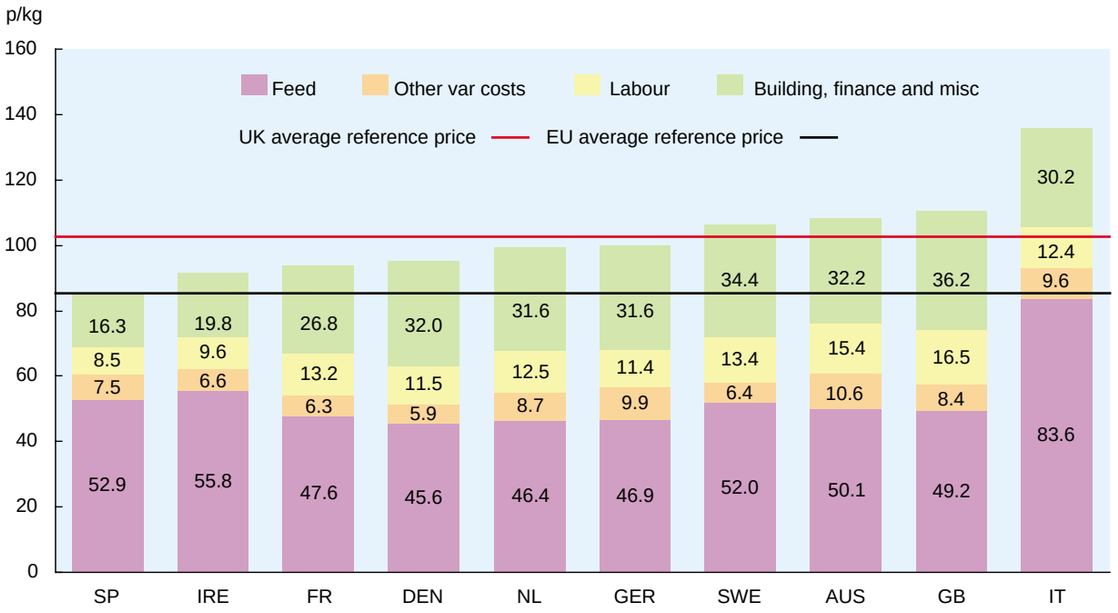
The cost and performance data relates to average performance data from the national recording systems operating in the participating countries. There will inevitably be some national differences in definition, but where this has occurred the data has been adjusted in the most appropriate way. There still remain discrepancies, but the results are believed to provide a clear indication of the relative average costs of production within each country and to provide an accurate comparison within 1-2p/kg deadweight.

Production systems in most of the participating EU countries are similar enough to make meaningful comparisons. The sole exception to this is Italy, where the main market for pigs is Parma ham production. Parma ham requires pigs to achieve a very high liveweight of typically 160kg, equivalent to 130kg carcase weight. However, comparisons are still possible for Italy between 2003 and earlier years.

COST OF PRODUCTION: AGGREGATE RESULTS FOR 2003

The production costs of pig meat in 2003 for all the countries covered in this report are shown below in Figure 1. These, and most of the later tables/charts in this report (with the exception of Figure 2, which shows a comparison of costs based on hot carcase weights) are all based on cold carcase weights.

Figure 1 Cost of production in selected EU countries, 2003



This data includes all variable costs, other than transport of pigs to abattoirs (which were previously included), and fixed costs. Fixed costs include depreciation and interest costs for capital items such as buildings and equipment. Costs for regular and casual labour are included but no allowances are made for directors' salaries or partners' drawings. The costs of manure disposal and disposal of fallen stock have been included for the first time.

Other than for Italian Parma ham production, in 2003 Great Britain continued to show the highest costs of production. On average, using the common methodology, it costs 110p to produce 1kg of pig meat in Great Britain, up from 105p in 2002. The 2003 cost of production was 25p higher than in Spain, the lowest-cost producer at 85p/kg. Production costs in Ireland, France and Denmark were also well below 100p/kg.

The impact of the higher production costs in Great Britain was however partly offset by producer prices being above the EU average. The UK average reference price in 2003 was 15p higher than the EU-15 average, at 103p/kg. Nevertheless, this still implies a loss of 7p on every kg of pig meat produced.

COST OF PRODUCTION: RESULTS FOR 2003 (HOT WEIGHT)

The carcase weight of a pig can be measured in two ways: either hot, soon after slaughter, or cold. The cold weight is lower than the hot weight, as drip loss will have taken place. In the United Kingdom and some other EU countries the carcase is weighed hot. In this case, a rebate is generally applied to the hot weight in order to arrive at the cold weight equivalent.

The UK rebates from hot to cold weight for clean pigs are based on the interval between slaughter and weighing the carcase: under 45 minutes=2kg, 46-180 minutes=1.5kg, 181-330 minutes=0.5kg, over 330 minutes = zero.

		AUS	DEN	FR	GER	GB	IRE	IT	NL	SP	SWE
Carcase weighed hot or cold?		H	H	C	H	H	C	C	H	H	C
Average carcase weight - Hot	kg	94.0	78.0	90.1	93.9	74.4	72.8	131.6	90.4	83.3	87.9
Adjustment from hot to cold	%*	0	-1.2%	-3.3%	-2.0%	<2.0kg	-2.0%	-2.2%	-2.0%	-2.0%	-2.0%
Adjusted carcase weight - Cold	kg	94.0	77.1	87.1	93.2	72.4	71.3	128.7	88.6	81.6	86.1
Total cost (hot)	p/kg	108.3	93.9	90.8	99.1	107.3	89.9	132.8	97.3	83.4	104.0
Total cost (cold)	p/kg	108.3	95.0	93.9	99.8	110.3	91.8	135.8	99.2	85.1	106.2

* Except in Great Britain where the adjustment is in kg

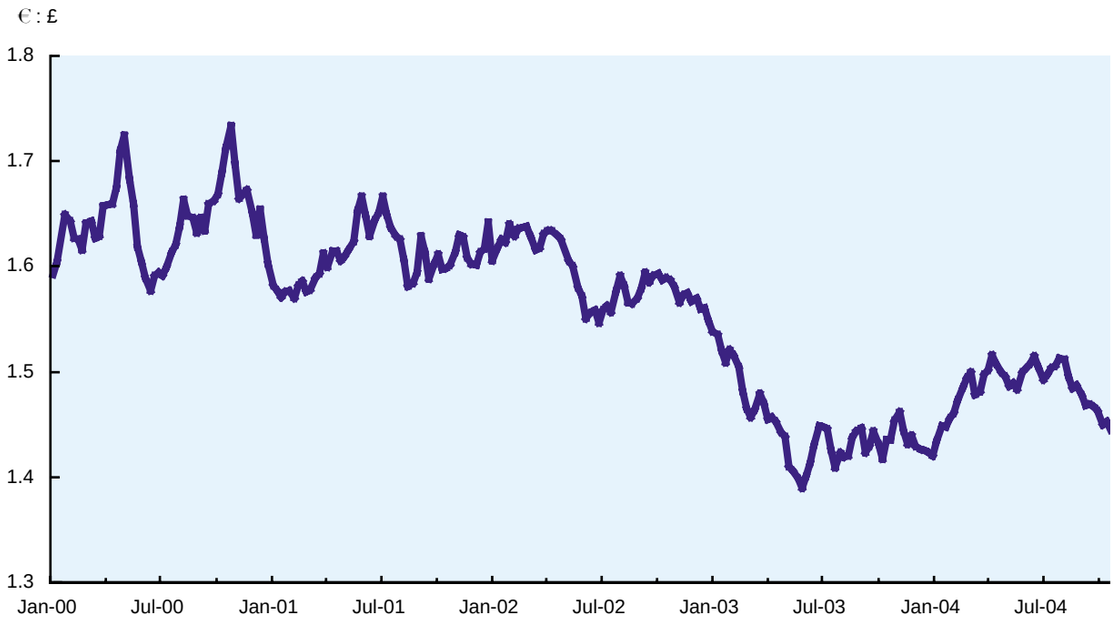
Table 1 Adjustments from hot weight to cold weight, 2003

The statistical comparisons in this report are all based on cold weight. However, it is interesting to look at how costs of production vary when compared on a hot weight basis. The cost of producing a kg of pig meat in Great Britain falls from 110p cold weight to 107p hot weight.

Figure 2 Cost of Production in 2003, Hot Weight and Cold Weight

COST OF PRODUCTION: THE IMPACT OF EXCHANGE RATES

Out of the 10 countries covered in this report, seven are in the Eurozone. Two of the remaining currencies – the Swedish Krona and the Danish Kroner – track the Euro, so that there are only minor fluctuations in



exchange rates between the three currencies.

Figure 3 Fluctuations in Exchange Rates, 2000-2004

Consequently, Great Britain is the only country where currency fluctuations can have a significant effect on relative production costs. In this report, costs of pig production for individual countries have been converted into Sterling using the appropriate annual exchange rate. However, changing exchange rates mean that trends in costs of production in the Eurozone countries will not necessarily be translated into the same trends in Sterling terms. An increase in the value of the Euro relative to Sterling will increase costs of production in these countries in Sterling terms.

The Euro has indeed strengthened against Sterling since 2000, with the change being particularly marked in 2003. This will have been a positive factor in the European competitiveness of GB pigs. Estimates for 2004 indicate that although the Euro will be slightly weaker at 68p, it will remain significantly firmer than in

Year	€:£	1€ =
2000	1.64	60.9p
2001	1.61	62.2p
2002	1.59	62.9p
2003	1.45	69.1p

the 2000-2003 period.

Table 2 Annual Exchange Rates

COST OF PRODUCTION: COMPARISONS WITH PREVIOUS YEARS

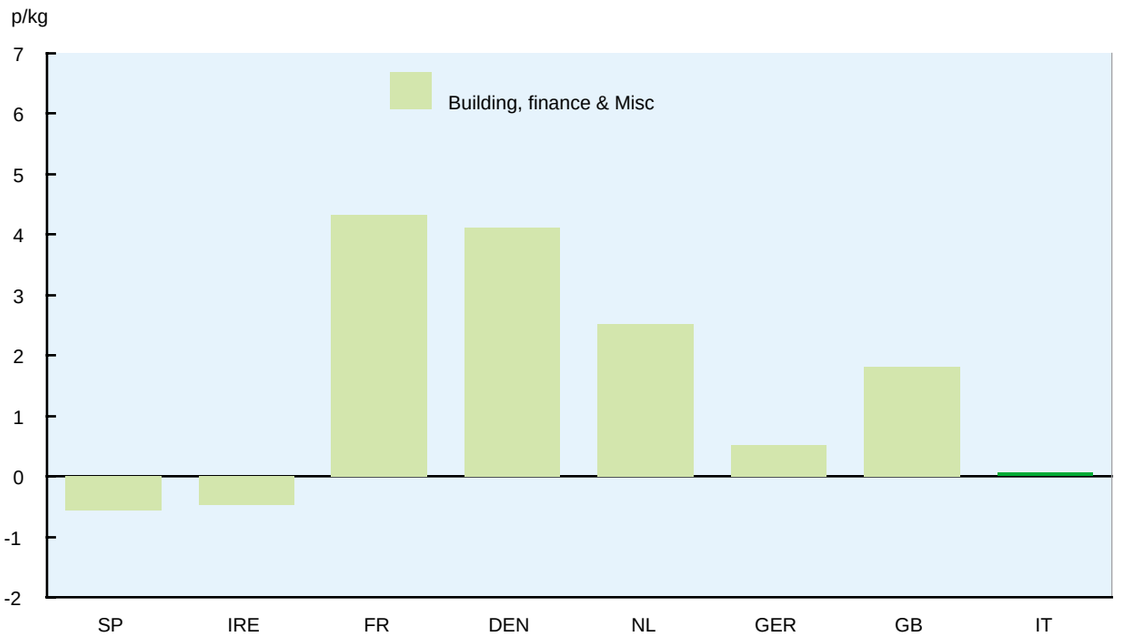
Changes in definition

There was a change in the definition of costs in 2003. Transport costs from farm to abattoir were excluded, as a number of the participating countries did not measure this, while manure disposal costs and the costs of disposal of dead animals were included for the first time. This change of definition had a differential impact in the various countries, as indicated in Figure 4. It inflated the costs of production in Great Britain and the Netherlands by around 2p/kg but France and Denmark both saw increases of over 4p.

Therefore to make meaningful comparisons with previous years, transport costs have been removed from 2000 and 2002 figures and manure disposal/dead animal disposal costs added to the figures. It has been assumed that transport costs in 2000 were the same as in 2002 and that disposal costs in 2000 and 2002 were the same as in 2003.

In Great Britain, average manure disposal costs on breeding units were calculated at £5.77per sow in 2003 while on rearing/finishing units the cost was £1.95 per finished pig. Disposal of fallen stock cost £0.71 per finished pig while transport from farm to abattoir was £1.80 per pig. This transport cost, which has now been excluded from the calculations, is equivalent to 2.5p/kg.

Figure 4 Effect on Costs of Production of Definition Changes in 2003



Includes manure and dead animal disposal costs

Excludes transport from farm to abattoir

Cost comparisons in sterling terms

Costs of production in 2003 compared with results for 2000 and 2002 are shown in Figure 5.

Figure 5 Comparison of Production Costs – 2000, 2002, 2003

In Sterling terms, there was an increase in production costs recorded for the majority of countries between 2002 and 2003. The exceptions were France and Denmark, where costs fell (due in part to lower feed costs), and the Netherlands, where costs were largely unchanged in total. The fact that Denmark and the Netherlands are the main overseas suppliers to Britain means that these were particularly significant developments.

2003 saw a further strengthening of the value of the Euro against Sterling. The €:£ exchange rate moved from 1.64 in 2000, to 1.59 in 2002 and to 1.45 in 2003. This made the prices of overseas pig meat higher in Sterling terms. The average cost of producing pig meat in the participating countries increased by five per cent in 2003.

Table 3 Average Costs of Production in 2000, 2002 and 2003 (p/kg dw)

Year	Average cost	Max	Min	Range
2000	82.96	92.78(GB)	74.44(Spain)	18.34
2002	94.11	105.43(GB)	80.91(Spain)	24.52
2003	98.84	110.26(GB)	85.13(Spain)	25.13

Note: (1) GB, Denmark, France, Germany, Ireland, the Netherlands and Spain from 2000, Sweden and Portugal from 2003. Italy has been excluded from the calculations.

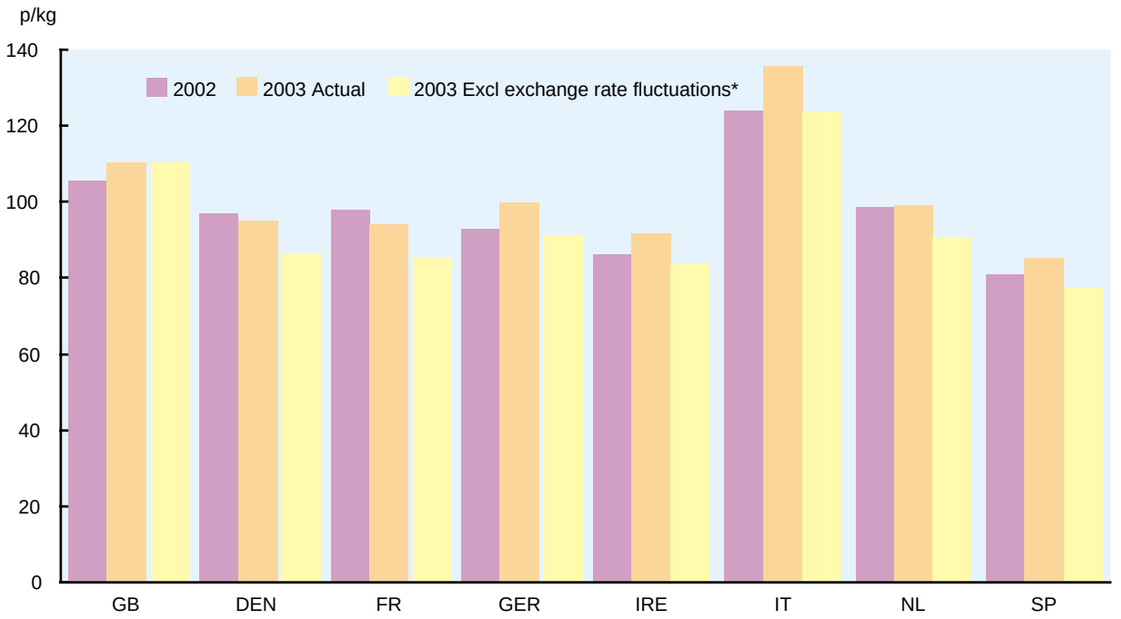
Cost comparisons in Euro terms

The average cost of producing pig meat in the selected countries increased by five per cent in 2003. However, a nine per cent decline in the value of Sterling against the Euro, meant that average prices in national currency terms declined by four per cent. Price movements in national currency terms can be seen by comparing the mauve and yellow bars in Figure 6.

In the majority of other countries, the cost of pig meat production declined in national currency terms – in contrast to the increase in GB costs. The decline in production costs was most marked in Denmark, France and the Netherlands.

In other words, a deterioration in the actual competitiveness of the GB pig sector in 2003, due to a combination of production efficiency and input costs, was masked by the impact of currency changes. While Britain benefited from these currency movements in 2003, this is not a basis for a long-term sustainable strategy. The foreign exchange markets are notoriously volatile, and there could easily be adverse movements in future years.

Figure 6 Estimated Impact of Exchange Rate Movements on Production Costs in Sterling Terms



* 2003 costs in Euro terms converted at the 2002 average exchange rate

COST OF PRODUCTION: COMPARISONS WITH NON-EU COUNTRIES

Table 4 shows both market prices for non-EU countries and the costs of production for EU countries. In the long term, relative market prices should move to reflect relative costs of production. This is because any substantial deviation of prices from costs will lead to abnormal losses or profits, which will cause a corrective change in production. Therefore market prices are a valid proxy for costs of production – in the absence of significant support payments.

Table 4 Comparisons of International Market Prices and Costs of Production

	2000 p/kg dw	2001	2002	2003	Average	% GB Costs
Market prices						
Brazil	46.3	42.9	27.7	31.2	37.0	36
Canada	73.8	77.1	59.7	62.4	68.3	66
United States	87.6	94.8	69.2	72.1	80.9	79
Poland*	76.1	99.9	78.5	67.9	80.6	78
EU-15	86.5	103.4	85.2	88.0	90.8	88
United Kingdom	96.3	99.1	94.5	103.4	98.3	96
Taiwan	118.1	98.2	99.9	109.2	106.4	103
Production costs						
Spain	74.4		80.9	85.1	80.2	78
Ireland	76.3		86.2	91.8	84.8	82
France	87.6		97.8	93.9	93.1	91
Denmark	82.2		96.9	95.0	91.4	89
Netherlands	84.0		98.5	99.2	93.9	91
Germany	84.3		93.0	99.8	92.4	90
Great Britain	92.8		105.4	110.3	102.8	100

* Since accession to the EU, Polish prices have risen and are now comparable with EU-15 levels

Over the 2000-2003 period, costs in Brazil, Canada and the United States were much lower than in the United Kingdom, with Brazil being just 36 per cent of the UK level. There can be some sharp fluctuations from year to year as a result of exchange rate movements. The most notable example of this is in Brazil, where the national currency – the Real - fell from 2.77 to the Pound in 2000 to 5.02 in 2003. Whether this will benefit them in the long run is uncertain, as currency devaluations often stimulate domestic inflation.

FINANCIAL PERFORMANCE SUMMARY

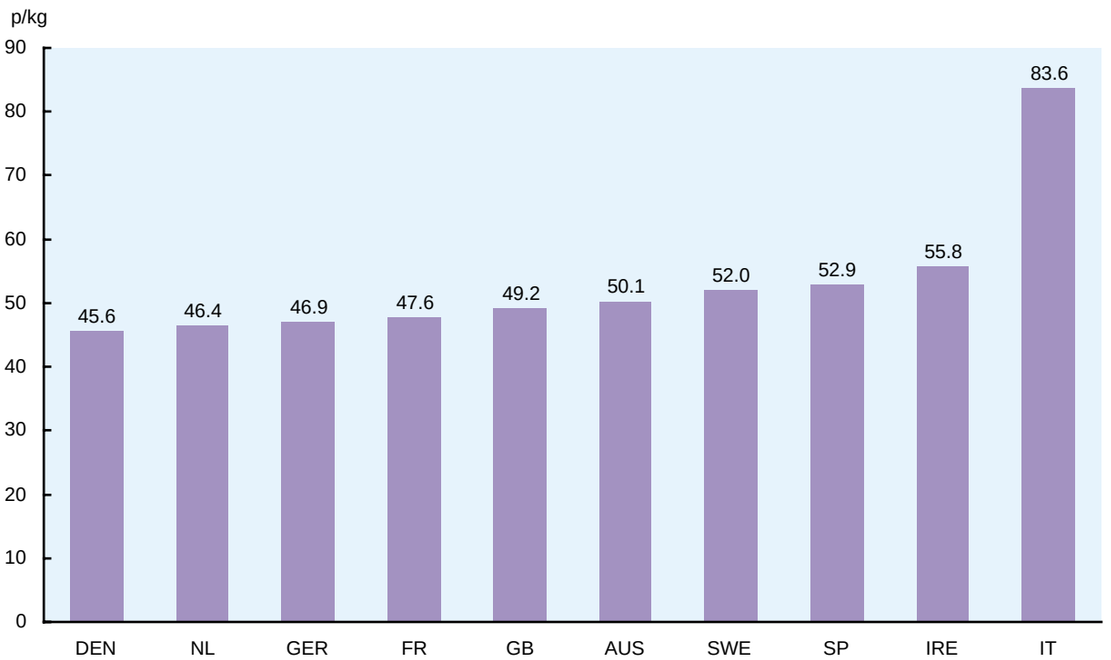
It is useful to examine the cost centres of European pig production to try and identify the causes of the wide range of total production costs.

Feed costs

Feed costs averaged 49p/kg in Great Britain. Feed varied less than the other cost centres, ranging from 46p/kg in Denmark to 56p in Ireland. Despite strong competitive advantages in terms of labour and building/finance, Spain has relatively high feed costs (53p/kg) as it has to import much of its feed requirements.

In the last few months of 2003, increases in feed prices across Europe became of increasing concern to the pig industry. The higher feed prices are not necessarily fully reflected in costs of production for 2003, because pig producers tend to buy forward their feed supplies. The differences between countries in the way producers buy their feed will have had a strong influence on changes in feed costs between 2002 and 2003. In Great Britain the majority of producers take out forward contracts in January-March, so 2004 will almost certainly reflect higher feed costs. In Denmark, there is a high degree of collective bargaining and producers take out annual feed contracts in August. As feed prices had not begun to rise in August 2003, 2003 feed costs were lower in Denmark.

Figure 7 Feed Costs, 2003



There are differences between countries in pig rations and in the energy content of the rations. Table 5 compares the Metabolizable Energy (ME) of pig feed with the cost of the feed. The cost of sow feed per kg MJ ME in the United Kingdom was the lowest in Europe in 2003, at just 89 per cent of the average of the participating countries. Rearer and finisher costs were much closer to the average, at 102 per cent and 104 per cent respectively. Overall, using this measure of feed costs, Spain and Italy had the most expensive feed.

Table 5 Comparison of Feed Costs

	AUS	DEN	FR	GER	GB
£/tonne					
Sow	122.31	114.55	120.93	118.93	101.69
Rearer	145.80	186.25	192.10	190.70	182.69
Finisher	133.36	111.75	110.56	111.68	115.50
Ave energy content (MJ ME/kg)					
Sow	12.00	13.13	12.80	12.80	13.02
Rearer	13.00	15.21	13.30	13.30	13.76
Finisher	12.20	13.91	12.80	13.10	12.76
Cost of feed (p/kg MJ ME)					
Sow	1.02	0.87	0.94	0.93	0.78
Rearer	1.12	1.22	1.44	1.43	1.33
Finisher	1.09	0.80	0.86	0.85	0.91

	IRE	IT	NL	SP	SWE
£/tonne					
Sow	133.41	138.20	122.58	133.79	117.07
Rearer	212.49	255.67	190.99	222.36	171.21
Finisher	133.73	138.20	120.58	135.26	124.67
Ave energy content (MJ ME/kg)					
Sow	13.25	11.92	12.90	12.42	12.40
Rearer	13.92	13.81	13.60	13.80	13.00
Finisher	13.20	12.74	13.80	12.97	12.50
Cost of feed (p/kg MJ ME)					
Sow	1.01	1.16	0.95	1.08	0.94
Rearer	1.53	1.85	1.40	1.61	1.32
Finisher	1.01	1.08	0.87	1.04	1.00

Labour

The cost of labour per kg of pig meat produced is higher in Great Britain than in any other European country. Table 6 indicates that this is due to a combination of factors. The labour input per finished pig in Great Britain is higher than the EU average, 133 per cent higher than in Denmark and 79 per cent higher than in the Netherlands. Labour cost per hour (£7.79) is lower than in a number of other countries: this may also reflect national differences in social security payments made by employers as well as differences in the relative usage of unskilled labour.

Overall the labour cost per pig in Great Britain is the second highest in the EU (excluding Italy). But because British pigs are much lighter than the EU average, this equates to the highest cost per kg produced.

Table 6 Labour Costs in 2003 (p/kg dw)

	AUS	DEN	FR	GER	GB
Labour per finished pig (hours/year)	2.00	0.66	1.10	1.29	1.54
Labour cost/hour (£)	7.26	13.50	10.43	8.29	7.79
Labour cost/pig (£)	14.49	8.89	11.49	10.67	11.98
Average carcase weight (cold)	94.0	77.1	87.1	93.2	72.4
Labour cost/kg (p)	15.41	11.52	13.19	11.45	16.54
	IRE	**IT**	**NL**	**SP**	**SWE**
Labour per finished pig (hours/year)	0.97	1.77	0.86	0.98	0.96
Labour cost/hour (£)	7.12	8.98	12.86	7.04	12.03
Labour cost/pig (£)	6.88	15.91	11.08	6.9	11.55
Average carcase weight (cold)	71.3	128.7	88.6	81.6	86.1
Labour cost/kg (p)	9.64	12.36	12.51	8.45	13.41

Building, Finance and Miscellaneous

Building, finance and miscellaneous costs were also highest in Great Britain. At 36p/kg, they were over twice the Spanish level. In 2002, Great Britain had benefited from reduced finance charges as a consequence of the Ongoers Scheme, which provided a discount of five per cent on structured borrowings. But this scheme was no longer in operation in 2003.

Figure 8 Building, Finance and Miscellaneous Costs, 2003

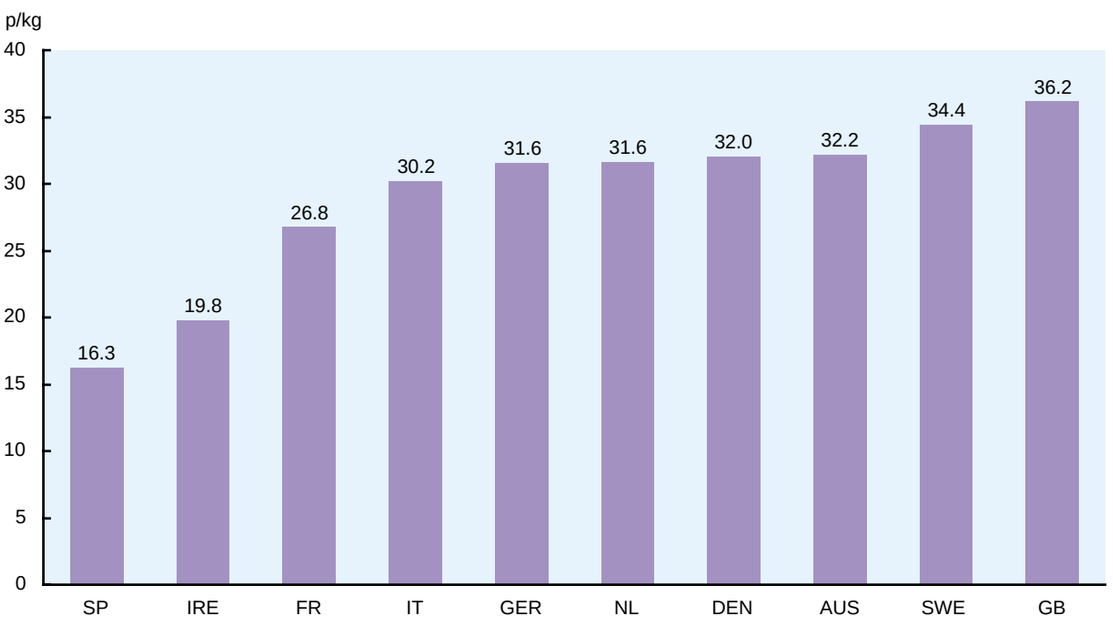


Table 7 Summary of Financial Performance, 2003

	AUS	DEN	FR	GER	GB	IRE	IT	NL	SP	SWE
Feed	50.09	45.60	47.65	46.90	49.15	55.76	83.61	46.35	52.89	51.96
Other Variable Costs	10.57	5.90	6.34	9.86	8.42	6.56	9.61	8.75	7.54	6.39
Total Variable Costs	60.66	51.50	53.99	56.76	57.57	62.32	93.22	55.10	60.43	58.34
Labour	15.41	11.52	13.19	11.45	16.54	9.64	12.36	12.51	8.45	13.41
Building, finance and misc	32.18	31.99	26.76	31.58	36.15	19.79	30.23	31.63	16.26	34.41
Total fixed costs	47.60	43.52	39.95	43.03	52.69	29.43	42.59	44.14	24.71	47.83
Total	108.25	95.01	93.93	99.79	110.26	91.75	135.81	99.24	85.13	106.17

Table 8 Summary of Financial Performance 2000, 2002 and 2003

	DEN			FR			GER			GB		
	2000	2002	2003	2000	2002	2003	2000	2002	2003	2000	2002	2003
Feed	40.18	48.18	45.60	41.67	50.32	47.65	40.56	46.49	46.90	49.69	55.04	49.15
Other Variable Costs	4.67	5.05	5.90	9.07	7.96	6.34	8.59	7.98	9.86	9.30	7.42	8.42
Total Variable Costs	44.85	53.23	51.50	50.74	58.28	53.99	49.15	54.47	56.76	58.99	62.46	57.57
Labour	11.51	11.60	11.52	9.69	10.89	13.19	11.11	11.42	11.45	10.49	11.28	16.54
Building, finance and misc	25.87	32.11	31.99	27.16	28.65	26.76	24.06	27.05	31.58	23.30	31.70	36.15
Total fixed costs	37.38	43.71	43.52	36.85	39.54	39.95	35.17	38.48	43.03	33.79	42.97	52.69
Total	82.23	96.94	95.01	87.59	97.82	93.93	84.32	92.95	99.79	92.78	105.43	110.26

	IRE			IT			NL			SP		
	2000	2002	2003	2000	2002	2003	2000	2002	2003	2000	2002	2003
Feed	46.53	52.13	55.76		78.00	83.61	38.32	44.03	46.35	47.13	47.91	52.89
Other Variable Costs	6.54	5.91	6.56		6.87	9.61	6.54	6.25	8.75	7.26	5.06	7.54
Total Variable Costs	53.07	58.04	62.32		84.88	93.22	44.86	50.29	55.10	54.39	52.97	60.43
Labour	7.03	9.07	9.64		10.86	12.36	10.89	12.42	12.51	6.99	8.58	8.45
Building, finance and misc	15.20	19.09	19.79		28.24	30.23	28.29	35.78	31.63	13.06	19.36	16.26
Total fixed costs	22.23	28.17	29.43		39.10	42.59	39.18	48.20	44.14	20.05	27.94	24.71
Total	75.30	86.20	91.75		123.98	135.81	84.04	98.49	99.24	74.44	80.91	85.13

PHYSICAL PERFORMANCE SUMMARY

Table 10 contains physical performance data for selected EU countries in 2003, while Table 11 presents comparisons with 2000 and 2002.

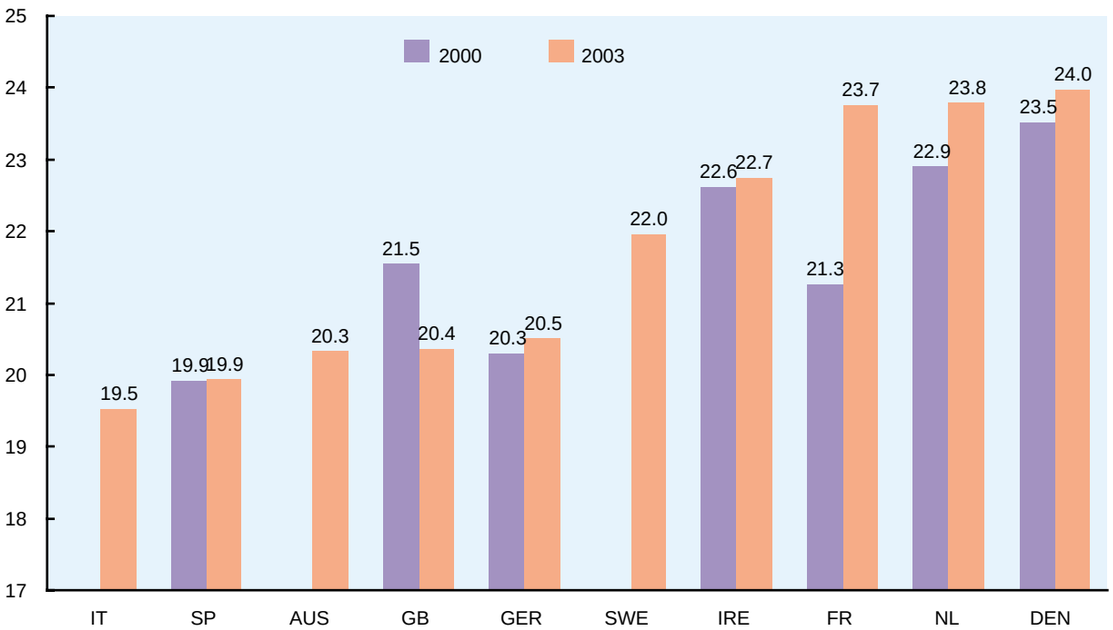
Pigs Weaned Per Sow Per Year

There is a considerable range in pigs weaned per sow per year, of 4.5 pigs. The best results were again achieved by Denmark (24.0 pigs), although results from Dutch and French herds were comparable. Denmark and France had high levels of pre-weaning mortality but the common factors of these three high-achieving countries were above average litters/sow/year and numbers of pigs born alive per litter.

The number of pigs weaned per sow in Great Britain was 20.4, very similar to Austria and Germany. British performance benefited from a below-average level of pre-weaning mortality (10.6%) but lost out from having the lowest number of litters per sow per year (2.12).

Results for Great Britain in 2003 were virtually the same as in the previous year, but 1.2 pigs a year (5%) lower than in 2000. Litter per sow, pigs born alive per litter and pre-weaning mortality all deteriorated between 2000 and 2003, although pre-weaning mortality and litters/sow both recovered a little in 2003.

Figure 9 Pigs Weaned per Sow per Year, 2000 and 2003



Post-Weaning Mortality

The number of pigs finished per sow per year is determined by pigs weaned and by post-weaning mortality. Table 9 below shows national comparisons of post-weaning mortality (rearing and finishing herd combined) in 2003. There was a considerable range in mortality levels. The lowest mortality in national herds occurs in Italy, Sweden and Ireland – all around four per cent. Great Britain had the highest mortality, at 10.5 per cent. Mortality in GB was similar to the previous year but it was significantly higher than in 2000, when it stood at 5.3 per cent, as a result of the spread of PMWS. The Spanish herd also had a relatively high mortality, of 8.2 per cent.

Table 9 Post-weaning Mortality, 2003

AUS	DEN	FR	GER	GB	IRE	IT	NL	SP	SWE
7.9%	7.3%	7.5%	6.4%	10.5%	4.4%	3.8%	5.0%	8.2%	3.8%

Pigs Finished Per Sow Per Year

Low mortality rates combined with a high number of pigs weaned per sow per year puts the Netherlands in top place in terms of pigs finished per sow per year, at 22.8. At the other end of the spectrum, Great Britain only finished 18.2 pigs a year. This was fractionally lower than in 2002 but 2.2 pigs (11%) down on performance in 2000. As mentioned in the previous report, the poor British results have been due to inferior weaning performance due to high average herd parity and high post-weaning mortality as a consequence of PMWS. Retention to first service may also have impacted on this figure, increasing the average number of unproductive days.

Figure 10 Pigs Finished per Sow per Year, 2000 and 2003

Daily Liveweight Gains (DLG)

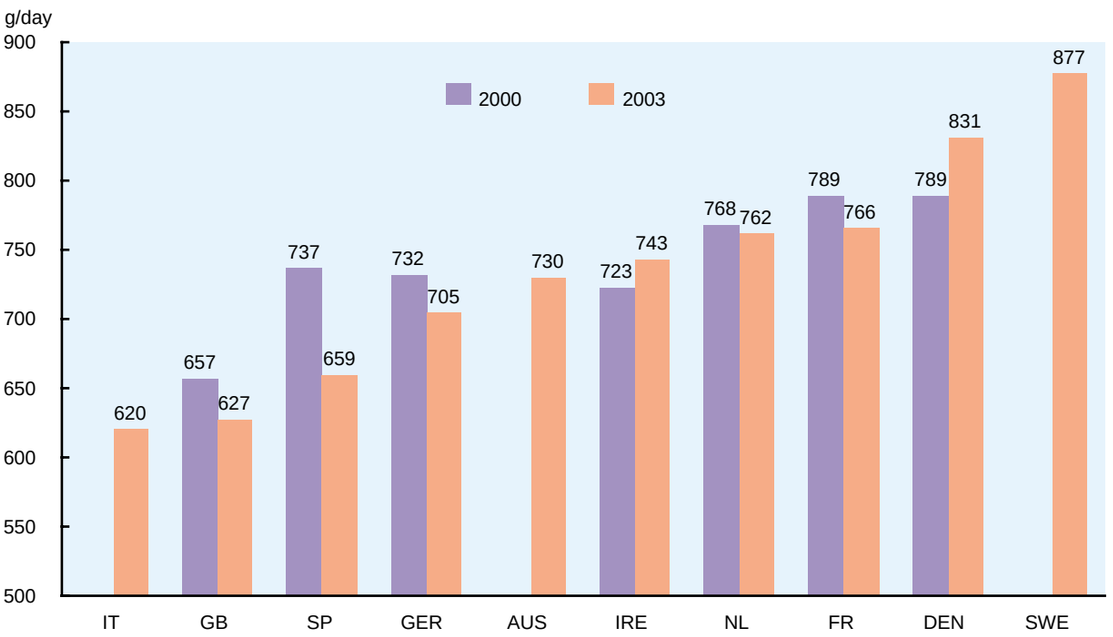
Average DLG in Great Britain in 2003 was 627g per day. This was 250g less than in Sweden and just over 200g lower than in Denmark.

The better performance recorded by some countries is in reality greater than indicated in Figure 11. This is because DLG is not linear, but declines as animals become heavier. Consequently, countries with higher slaughter weights would, other things being equal, have a lower average DLG. The most striking examples of this are in the Netherlands and France, both of which have a higher DLG than in Great Britain.

In previous reports, poor growth rates in British finishing herds were highlighted as a key competitive disadvantage. It was estimated that a 10 per cent improvement, from 657g/day (the 2000 figure) to 723g/day would lower average cost of production by 4p/kg. However, performance has in fact deteriorated slightly since then. This is partly due to a decline in herd health status and partly because of a lack of investment in new buildings and equipment, arising from continued poor profitability.

Trends in other countries diverged quite markedly between 2000 and 2003. Most significantly, DLG in Spain fell by 78g (11%) over the three year period, while there were improvements of 42g in Denmark and 20g in Ireland. The improvement in Danish growth performance has coincided with their voluntary decision to stop using all antibiotic growth promoters (AGPs) in 2000. AGPs are due to be completely phased out EU-wide from 2006.

Figure 11 Daily Liveweight Gains, 2000 and 2003



Feed Conversion Ratios (FCR)

As with Daily Liveweight Gain, FCR is partly correlated with average weight at slaughter. Thus the highest FCR is in Italy, followed by Austria and Germany. This relationship does not always apply, however, as the Netherlands has a low FCR and relatively heavy pigs.

The FCR in Great Britain averaged 2.74, representing a slight increase compared with 2000 and 2002. The most marked improvement since 2000 has been in Spain, which also has the lowest FCR of the participating countries. It is interesting to note that FCR is one of the few superior physical performance measures in Spain.

Figure 12 Feed Conversion Ratios, 2000 and 2003

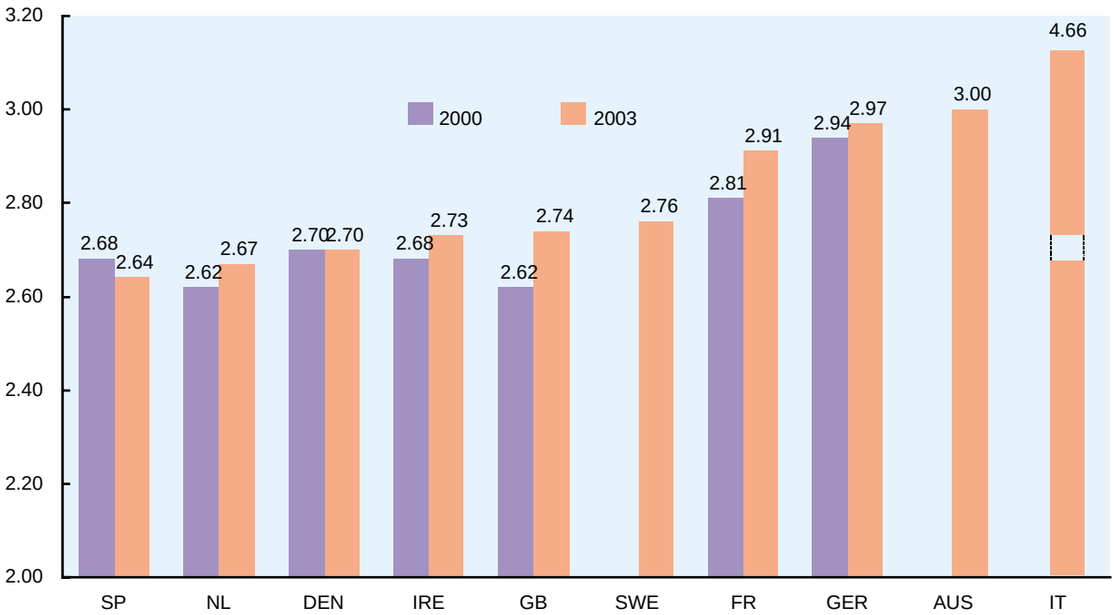


Table 10 Summary of Physical performance, 2003

	AUS	DEN	FR	GER	GB	IRE	IT	NL	SP	SWE
Pigs Weaned Per Sow Per Year	20.34	23.97	23.75	20.50	20.36	22.74	19.53	23.78	19.93	21.96
Pigs Sold Per Sow Per Year	18.71	22.19	21.94	19.16	18.16	21.74	18.79	22.57	18.26	21.12
Litters/sow/year(1)	2.20	2.25	2.24	2.23	2.12	2.28	2.17	2.31	2.17	2.19
Pigs born alive per litter	10.60	12.30	12.30	10.80	10.74	11.01	10.31	11.70	10.28	11.70
Pre Weaning Mortality (%)	12.80	13.40	13.80	14.90	10.60	9.40	12.70	12.00	10.65	14.30
Rearing Mortality (%)	5.00	3.60	2.60	2.80	4.30	2.26	3.30	1.90	3.10	2.50
Finishing Mortality (%)	3.00	3.80	5.00	3.70	6.50	2.16	0.50	3.20	5.30	1.30
Sow replacement rate (%)	40.0	45.0	41.0	39.0	43.3	51.6	37.0	42.0	48.5	52.0
Transfer weight from breeding to rearing unit (kg)	8.00	7.00	7.80	7.00	7.20	6.90	7.60	8.00	5.90	10.00
Age of weaning	28.00	30.50	25.40	27.00	26.00	28.00	26.70	26.60	22.00	34.70
Transfer weight from rearing to finishing unit (kg)	31.50	30.00	32.60	29.00	34.70	35.20	35.00	25.70	19.60	29.90
Rearing Daily Liveweight Gain (g/day)	420	415	452	439	462	434	435	327	324	na
Rearing Feed Conversion Ratio	2.00	1.63	1.68	1.61	1.77	1.79	2.02	1.67	1.64	na
Finishing Daily Liveweight Gain (g/day)	730	831	766	705	627	743	620	762	659	877
Finishing Feed Conversion Ratio	3.00	2.70	2.91	2.97	2.74	2.73	4.66	2.67	2.64	2.76
Ave number of days in rearing unit	56.0	55.4	54.9	50.1	59.5	65.2	63.0	54.1	42.3	na
Ave number of days in finishing unit	118.5	86.6	106.0	126.2	97.9	79.3	206.5	118.2	128.1	97.0
Pigs per pig place per year (finishing)	2.91	3.90	3.02	2.74	3.48	4.23	1.71	2.91	2.70	3.51
Average live weight at slaughter	118.00	102.00	113.80	118.00	96.10	94.10	163.00	115.80	104.00	115.00
Carcase weighed hot or cold?	H	H	C	H	H	C	C	H	H	C
Average carcase weight - Hot	94.00	78.04	90.10	93.90	74.40	72.75	131.60	90.40	83.31	87.90
Adjustment from hot to cold	0.00	-0.01	-0.03	-0.02	≥ 2.0 kg	-0.02	-0.02	-0.02	-0.02	-0.02
Adjusted carcase weight - Cold	94.00	77.10	87.10	93.22	72.40	71.30	128.70	88.59	81.64	86.10
Killing out percentage	79.66	0.76	0.77	0.79	0.75	0.76	0.79	0.77	0.79	0.75
Carcase meat production per sow per year (kg)	1758.57	1711.07	1911.40	1786.40	1314.56	1549.91	2418.17	1999.59	1490.55	1818.82
Average lean meat percentage	59.30	60.40	60.40	56.00	58.50	58.00	47.27	56.20	56.30	57.40
Lean meat production per sow per year (kg)	1015.00	1015.00	1154.48	1000.38	769.02	898.95	1143.07	1123.77	839.18	1044.00
Sow feed (kg) per sow per year	1024.00	1308.00	1338.00	1200.00	1297.00	1220.00	1499.00	1179.00	1098.00	1460.00
Sow ration Ave Energy Content (MJ ME/kg)	na	13.13	12.80	12.80	13.02	13.25	11.92	12.90	12.42	12.40
Weaner/Rearer feed (kg) per pig	41.00	37.49	41.66	35.42	48.68	50.66	55.35	29.60	22.47	43.00
Weaner/Rearer ration Ave Energy Content (MJ ME/kg)	na	15.21	13.30	13.30	13.76	13.92	13.81	13.60	13.80	13.00
Finishing pigs feed consumption (kg) per pig	258.00	191.70	236.29	264.33	168.24	160.80	596.48	240.57	222.82	234.88
Finisher ration Ave Energy Content (MJ ME/kg)	na	13.91	12.80	13.10	12.76	13.20	12.74	13.80	12.97	12.50

Table 11 Summary of Physical Performance 2000, 2002 and 2003

	DEN			FR			GER			GB		
	2000	2002	2003	2000	2002	2003	2000	2002	2003	2000	2002	2003
Pigs Weaned Per Sow Per Year	23.52	23.80	23.97	21.26	23.51	23.75	20.30	21.51	20.50	21.54	20.35	20.36
Pigs Sold Per Sow Per year	21.85	22.01	22.19	19.47	21.70	21.94	18.98	19.83	19.16	20.38	18.22	18.16
Litters/sow/year(1)	2.28	2.25	2.25	2.23	2.22	2.24	2.15	2.25	2.23	2.18	2.10	2.12
Pigs born alive per litter	11.79	12.20	12.30	10.82	12.20	12.30	10.84	10.88	10.80	11.02	10.89	10.74
Pre Weaning Mortality (%)	12.50	13.30	13.40	11.90	13.20	13.80	13.00	12.14	14.90	10.30	10.80	10.60
Rearing Mortality (%)	3.80	3.70	3.60	3.00	2.60	2.60	3.60	4.86	2.80	2.30	4.20	4.30
Finishing Mortality (%)	3.30	3.80	3.80	5.40	5.10	5.00	2.90	2.94	3.70	3.10	6.30	6.50
Finishing Daily Liveweight Gain (g/day)	789	827	831	789	766	766	732	740	705	657	635	627
Finishing Feed Conversion Ratio	2.70	2.74	2.70	2.81	2.94	2.91	2.94	2.91	2.97	2.62	2.72	2.74
Average live weight at slaughter	101.0	101.0	102.0	113.0	113.6	113.8	116.0	116.0	118.0	94.0	97.1	96.1
Adjusted carcase weight - Cold	77.0	77.0	77.1	86.6	86.9	87.1	92.0	93.0	93.2	71.0	71.5	72.4
Average lean meat percentage	60.10	60.00	60.40	60.30	60.00	60.40	55.70	56.00	56.00	58.50	58.50	58.50
Lean meat production per sow per year (kg)	1011	1017	1015	1017	1137	1154	972	1036	1000	846	762	769

	IRE			IT			NL			SP		
	2000	2002	2003	2000	2002	2003	2000	2002	2003	2000	2002	2003
Pigs Weaned Per Sow Per Year	22.61	22.92	22.74		19.90	19.53	22.90	23.40	23.78	19.92	20.30	19.93
Pigs Sold Per Sow Per year	21.50	21.89	21.74		19.38	18.79	21.89	22.08	22.57	18.13	18.87	18.26
Litters/sow/year(1)	2.29	2.30	2.28		2.20	2.17	2.34	2.31	2.31	2.06	2.20	2.17
Pigs born alive per litter	10.85	10.95	11.01		10.16	10.31	11.30	11.50	11.70	10.99	10.50	10.28
Pre Weaning Mortality (%)	9.00	9.00	9.40		10.97	12.70	13.40	11.70	12.00	12.00	12.10	10.65
Rearing Mortality (%)	2.60	2.48	2.26		1.60	3.30	1.70	2.20	1.90	3.00	3.12	3.10
Finishing Mortality (%)	2.30	2.01	2.16		1.00	0.50	2.70	3.50	3.20	6.00	3.95	5.30
Finishing Daily Liveweight Gain (g/day)	723	749	743		620	620	768	762	762	737	707	659
Finishing Feed Conversion Ratio	2.68	2.70	2.73		4.67	4.66	2.62	2.67	2.67	2.68	2.79	2.64
Average live weight at slaughter	90.0	93.5	94.1		164.0	163.0	112.0	114.0	115.8	110.0	105.0	104.0
Adjusted carcase weight - Cold	68.1	70.8	71.3		129.5	128.7	87.0	87.2	88.6	82.0	80.0	81.6
Average lean meat percentage	58.50	58.30	58.00		47.00	47.27	56.00	57.00	56.20	56.20	56.40	56.30
Lean meat production per sow per year (kg)	857	904	899		1187	1143	1067	1104	1124	835	851	839

CONCLUSIONS

The purpose of this report is to assess the relative competitiveness of British pig production with that of other EU countries for 2003. This report is an update of two previous reports that examined relative costs in 2000 and 2002, and comparisons are also made with results for these two years.

As stressed in the previous report, it is not possible to evaluate fully the competitive position of British pig meat production without analysing relative performance at processor and retail/foodservice level. These areas are likely to be the focus of further research over the next few years.

The key findings from the report are as follows:

- Britain again had the highest average cost of pig production, excluding Italian Parma ham production, at 110.3p. This compares with 105.4p in 2002 (figures adjusted to give a comparable definition) and 92.8p in 2000.
- The average cost of production in all the participating EU countries (excluding Italy) was 98.8p in 2003. This was up from 94.1p in 2002 and 83.0p in 2000.
- The fall in the sterling exchange rate against the Euro had a major beneficial impact on the relative competitiveness of British pig meat in 2003, as it increased production costs of other countries in sterling terms. Expressed in national currency terms, costs of production overall declined by four per cent in 2003.
- In terms of physical performance parameters, Great Britain has poor results in a number of key areas: litters per sow per year, mortality and daily liveweight gain. Performance has deteriorated significantly since 2000, due largely to PMWS.
- However there were some encouraging signs in GB breeding herds in 2003, with a number of performance indicators either beginning to stabilise or recovering slightly. The average number of pigs weaned per sow per year was very similar to 2002 while there were improvements in litters per sow per year and pre-weaning mortality.
- The increases in cereal and protein prices in the last few months of 2003 were not reflected in higher feed costs in the annual results. This is due to producers buying on forward contracts. It is anticipated that the 2004 results will therefore show some sharp increases.

APPENDIX I

European Pig Industry Trends in 2003

	AUS	DEN	FR	UK	GER	IRE	IT	NL	POL	SP	SWE
Breeding sow numbers (000 head)	326	1,424	1,328	573	2,564	176	736	1,052	1,705	2,538	204
Annual pig slaughterings (000 head)	5,425	22,499	26,539	9,355	45,373	2,872	13,576	13,890	25,237	38,180	3,305
Pig meat production (000 tonnes)	518	1,762	2,339	715	4,239	217	1,589	1,253	2,155	3,322	289
Pig meat imports (000 tonnes cwe)	86	76	487	937*	1,103	50*	834	250	53	101	67
Pig meat exports (000 tonnes cwe)	136	1,431	588	95*	797	120*	164	816	238	641	33
Pig meat consumption (000 tonnes cwe)	468	400	2,240	1,559*	4,545	147*	2,259	687	1,838	2,776	323
Pig meat consumption (kg/head)	57.4	74.4	36.5	25.9*	55.1	37.7*	40.1	42.5	47.6	68.5	36.2

* Estimated figures for 2003
All figures are subject to revision

Source: MLC Economics (www.mlceconomics.org.uk), Eurostat

economics
Independent and accurate

APPENDIX II

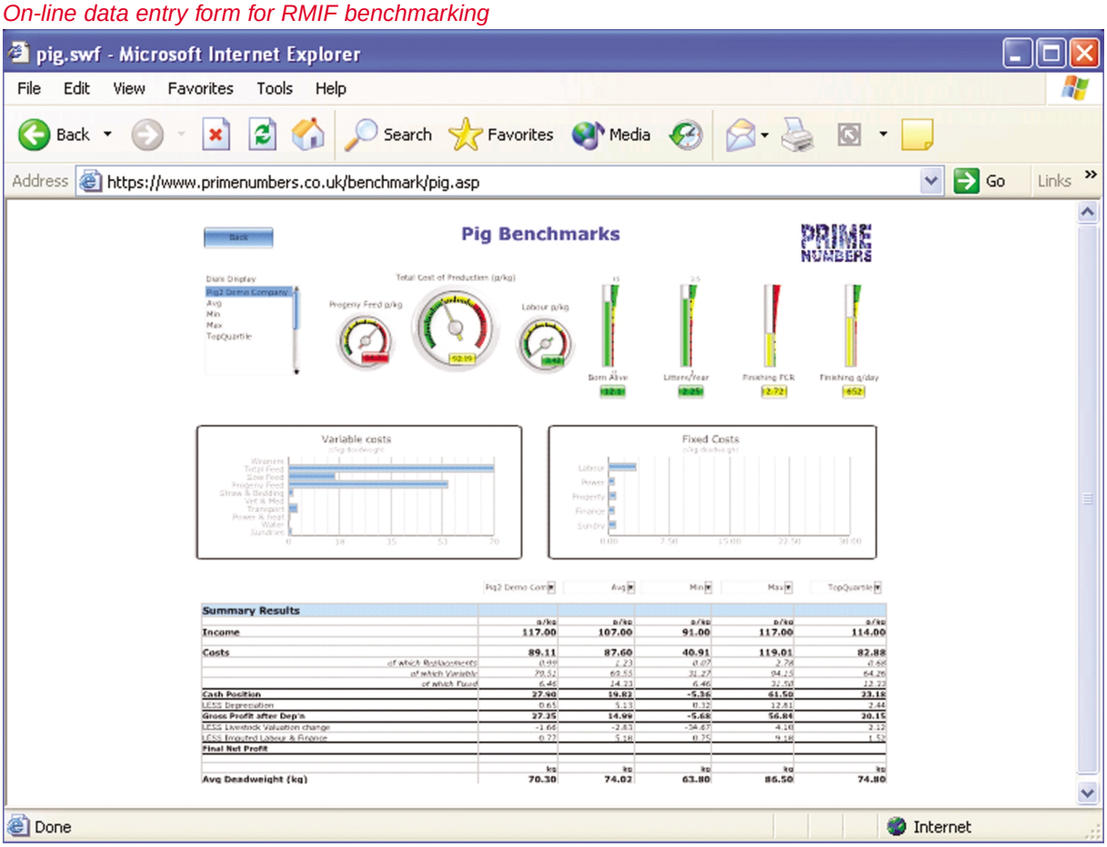
RMIF
Red Meat Industry Forum

Red Meat Industry Forum (RMIF) On-Farm Benchmarking Clubs.

On-Farm Benchmarking is a practical programme from the RMIF. By comparing your business with similar pig units, it helps you to focus on your business strengths and weaknesses.

By inputting your farm data into a completely confidential and easy-to-use system you will receive a set of results that show how your business compares with others.

On-line data entry form for RMIF benchmarking



The key to this programme lies in the On-Farm Benchmarking 'Clubs' that are set up.
Likeminded pig producers get together to pool their expertise and find practical self-help solutions to their business challenges as a direct result of areas highlighted by the data results.

Each Club is assigned an experienced facilitator, who supports the Club in pinpointing opportunities for improvement and finding realistic ways to increase their profits.

In short, the Club's members are able to focus on their business processes, prioritise areas of improvement and work together to come up with best practice solutions quickly.

It is precisely that producers are involved in their own business improvement process that so much is gained by On-Farm Benchmarking and the Clubs. Pig producers are able to maintain a continuous business improvement, keeping up with competition and sustaining their farm business.

There are also clear benefits for you as a pig producer, particularly when faced with taking important business decisions following the removal of subsidies. It is important to fully understand your costs of production in order to face the future with certainty.

There are currently schemes for Pig Weaners and Pig Finishers.

For further information or to start On-Farm Benchmarking please contact the RMIF on 01908 844245 or visit www.redmeatindustryforum.org.uk

APPENDIX III

Agrosoft Ltd offers Pig Production Business data recording, reporting and analysis incorporating Benchmarking and Bureau services On-site software solutions development, supply and support and Pig Business production and financial consultancy using a product range that includes WinPig, PigPlan and Easicare.

Agrosoft Ltd is involved in the provision of pig production business recording solutions to individual producers and production multiples. The basic solutions range from a paper based bureau service to on-site integrated software combining PC and PDA technology with the internet that is compatible with industry chain IT solutions. These services are fully supported by an experienced team. A consultancy service is also part of the Agrosoft Ltd business providing detailed data interpretation and the development of management strategy plans. Agrosoft Ltd publishes the PigFacts monthly journal, which includes current statistics and articles relating to pig production.

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