

*of  
Lecture*  
June, 1953

Farmers' Report No. 112

GIANNINI FOUNDATION OF  
AGRICULTURAL ECONOMICS  
LIBRARY

COSTS AND RETURNS FROM KEEPING PIGS ON TWELVE YORKSHIRE FARMS

1951 - 1952

UNIVERSITY OF LEEDS

Department of Agriculture: Economics Section

This report was written by Mr. I.G. SIMPSON from the material collected  
tabulated by Mr. D.W. McInnes. Thanks are due to the farmers through  
co-operation the investigation was made possible.

W. Harwood Long

TABLE IV  
RANGE OF COSTS PER £100 GROSS OUTPUT  
ON INDIVIDUAL FARMS

a) Food Cost per £100 Gross Output

Food Cost	£50 - £60	£60 - £70	£70 - £80	£80 - £90	£90 - £100
Number of Farms	2	1	7	1	1

b) Labour Cost per £100 Gross Output

Labour Cost	£4 - £5	£5 - £7	£7 - £9	£9 - £11	£11 - £13	£13 - £15
Number of Farms	3	4	1	1	1	2

c) Total Cost per £100 Gross Output

Total Cost	£60 - £70	£70 - £80	£80 - £90	£90 - £100	£100 - £115
Number of Farms	2	1	7	2	1

The average size of litter born was 8.8 pigs. The yearly production per sow, therefore, was  $8.8 \times 1.5 = 13.2$  pigs per year. A difficulty arises in the calculation of the proportion of pigs born per sow during the costings year which are actually reared to weaning. This is because some of the pigs weaned during the year were born before the start of the costings period while others born during this period were still suckling at the end of it. It has, however, been possible to make a reasonably accurate estimate of the death rate of pigs born during the costings period. It was estimated that 19.5 per cent of pigs born died before weaning. On the basis of this estimate, out of 13.2 pigs born per sow during the year 10.6 would be reared up to weaning.

TABLE V  
SOME FACTORS INFLUENCING THE RETURNS FROM PIGS

	Average of 11 Herds	Your Farm
Pigs born per litter	8.8	
Percentage of pigs lost from birth to weaning	19.5	
Pigs weaned per litter	7.1	
Litters per sow per year	1.5	
Pigs reared per sow per year	10.8	
Output per breeding sow	£48 10s. 0d.	
Percentage of pigs lost after weaning	3.6	

An important factor in determining the return from the pig enterprise is the weight of pigs sold for bacon. During the period covered by this report the maximum price per score was paid for pigs weighing between 7 score 1 pound and 9 score 0 pounds deadweight. It was almost certainly to the advantage of the bacon producer to get his pigs killing out at weights within this range. Although the individual weights of baconers sold are not available, it appears probable that the majority of baconers sold from the twelve costed herds fell within this range, since the average deadweight of all bacon pigs sold was 8 score  $1\frac{1}{2}$  pounds deadweight. The average price obtained per score was 53s. 3d.

One of the most useful measures of efficiency in pig production is the number of pounds of food fed to obtain a one pound increase in the weight of the pig. No calculation of this was possible since the weights of pigs other than baconers, which were bought on to or sold off the farm were not available. The value of records relating to the pig enterprise can be greatly enhanced if this information about the weight of pigs is available.



TABLE V  
SOME FACTORS INFLUENCING THE RETURNS FROM PIGS

	Average of 11 Herds	Your Farm
Pigs born per litter	8.8	
Percentage of pigs lost from birth to weaning	19.5	
Pigs weaned per litter	7.1	
Litters per sow per year	1.5	
Pigs reared per sow per year	10.8	
Output per breeding sow	£48 10s. 0d.	
Percentage of pigs lost after weaning	3.6	

An important factor in determining the return from the pig enterprise is the weight of pigs sold for bacon. During the period covered by this report the maximum price per score was paid for pigs weighing between 7 score 1 pound and 9 score 0 pounds deadweight. It was almost certainly to the advantage of the bacon producer to get his pigs killing out at weights within this range. Although the individual weights of baconers sold are not available, it appears probable that the majority of baconers sold from the twelve costed herds fell within this range, since the average deadweight of all bacon pigs sold was 8 score  $1\frac{1}{2}$  pounds deadweight. The average price obtained per score was 53s. 3d.

One of the most useful measures of efficiency in pig production is the number of pounds of food fed to obtain a one pound increase in the weight of the pig. No calculation of this was possible since the weights of pigs other than baconers, which were bought on to or sold off the farm were not available. The value of records relating to the pig enterprise can be greatly enhanced if this information about the weight of pigs is available.

Part II

The main additional information, which it was found possible to extract from the records for the seven herds where the foods fed have been allocated separately to the breeding and fattening pigs, is set out in Table VI. The average figures and the figures for each of the seven farms are given in this table.

In calculating the gross output from the two sections of the herds, weaners have been transferred from the breeding to the feeding sections at their market value as estimated by the farmers concerned.

In the first section of Table VI food costs per £100 gross output are given separately for the breeding and fattening sections of the seven herds. In all herds food costs per £100 gross output were lower for the fattening pigs. The average food cost of £66 4s. 6d. per £100 gross output for the fattening sections is, however, rather biased by the very low food cost per £100 gross output of £38 14s. 0d. on Farm 6, where the pigs were fed large amounts of cheap swill. If the food costs for the remaining six herds are considered, the food costs per £100 gross output averaged £95 15s. 0d. for the breeding pigs and £70 6s. 0d. for the fattening pigs.

Although it has not been possible to allocate the other costs, such as labour, between the breeding and fattening pigs, it appears probable that the breeding pigs were considerably less profitable than the fattening pigs on these seven farms during the year under review. The lower profits from the breeding pigs may partly be attributed to a larger than usual fall in the price of store pigs during the latter half of 1951. Between July and December 1951 the price of 8 to 12 week old store pigs, according to the Ministry of Agriculture's market report, fell by nearly £2. Over the corresponding period in 1952 the price fell by less than 10s. 0d. It is also possible that in some cases weaners may have been undervalued when being transferred from the breeding to the fattening sections of the costed herds. The average value of the weaned pigs is given in the third section of Table VI.

In the second section of Table VI output and food costs have been calculated on the basis of the average number of sows and gilts in the breeding sections of the seven herds. The average food cost per sow per year of £50 13s. 0d. includes not only the cost of foods fed to the sows but also that fed to the boars and sucking pigs.

Food cost per pig reared to weaning is also given in the second section of Table VI. It was calculated by dividing the food cost per sow by the estimated number of pigs reared per sow during the year, and averaged £4 10s. 0d.

The estimated number of pigs reared to weaning per sow which is given in Section 3 of Table VI for the seven herds was calculated in the way explained in Part I of this report.



TABLE

OUTPUT AND PERFORMANCE

	Average of 7 Herds			Herd 1		
	£	s.	d	£	s	d
<u>Section 1</u>						
Food Cost per £100 Gross Output						
a) Breeding Pigs	96	16	9	125	17	0
b) Fattening Pigs	66	4	6	85	16	0
<u>Section 2</u>						
Gross Output per Breeding Sow	50	13	0	49	16	0
Food Cost per Sow	48	16	6	62	12	0
Margin over Food Cost per Sow	1	16	6	12	16	0
Food Cost per Pig Reared to Weaning	4	10	0	7	2	6
<u>Section 3</u>						
Litters per Sow per Year	1.7			1.6		
Pigs Weaned per Litter	6.7			5.5		
Pigs reared to Weaning per Sow	11.2			8.8		
	£	s.	d	£	s.	d
Average Value of Pigs Weaned	4	12	6	5	8	0

VIIN SEVEN COSTED HERDS

Herd 2	Herd 3	Herd 4	Herd 5	Herd 6	Herd 7
£ s. d	£ s. d	£ s. d	£ s. d	£ s. d	£ s. d
76 9 6	97 0 0	87 8 6	85 1 6	103 1 6	102 12 6
64 1 6	66 11 0	71 18 0	70 15 0	38 14 0	65 15 0
52 12 6	37 0 0	55 0 6	62 10 0	53 8 0	44 4 6
41 16 0	36 2 0	48 2 0	53 2 0	55 0 0	45 1 2
+ 10 16 0 +	18 0 +	6 17 6 +	9 8 0 -	1 12 0 -	16 8
3 7 6	3 10 0	4 12 6	4 0 0	5 1 0	3 16 0
1.7	1.8	1.7	1.9	1.4	1.5
7.2	5.8	6.1	7.0	7.7	7.9
12.4	10.4	10.4	13.3	10.9	11.9
£ s. d	£ s. d	£ s. d	£ s. d	£ s. d	£ s. d
4 14 6	3 13 0	4 6 0	4 18 0	5 7 0	4 0 0



Notes on Table VI

The margin over food cost per sow given in Table VI is an accurate statement of the position in the seven herds concerned during the costings period in the sense that it is obtained from an estimate of the value of the production arising from the breeding sections of the herds and the actual food costs incurred. It might be assumed that a similar margin over food costs per weaner (obtained from the average price and food cost per weaner) could be obtained which when multiplied by the number of weaners per sow would equal the margin per sow. A calculation of this sort made from the figures in Table VI will not give this result for the following reasons.

In the first place, the output per sow and therefore the margin over food cost per sow takes into account any appreciation or depreciation on the breeding pigs themselves, this item does not enter into either the price or food cost per weaner.

Secondly the various factors used in making the calculations refer to slightly different samples of pigs. Thus "gross output per sow" takes into account the output obtained during the costings year both from pigs born before the start of the costings period and weaned during it as well as from pigs born during the period, some which were weaned after the close of it. "Pigs reared to weaning per sow" refers only to pigs actually born during this period. The "average value per pig weaned" on the other hand refers only to pigs actually weaned during the costings period, some which may have been born before the start of it.