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COMMERCIAL PIG PRODUCTION

IN

1959

by

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Economic Aspects of Tractor Work, 1957-58
Some Notes on the Depreciation and Repair Costs of Farm Machinery.

Copies of these publications may be obtained on request to the Secretary of the College or the Advisory Economist.

FOREWORD

The Price Review determinations of February 1960 gave some slight encouragement towards an increased production of pig meat in this country. The 1961 Price Review has recognised that this has not been enough to raise production to as high a level as is considered desirable under present day circumstances. At the same time it is recognised that one of the principal deterrents which affects the pig industry is the wide fluctuation in supplies which can come about so quickly as breeding herds are extended or diminished in response to producers' estimates of short term profitability. A new feature has been introduced following the 1961 Review; in the words of the White Paper "the new flexible guarantee for pigs to limit the fluctuations which have bedevilled this branch of farming for so long." Periodic adjustments may be made to the guaranteed price over and above the increase awarded at the Review. If supplies are likely to fall below the desired level the guaranteed price will be adjusted upwards; if supplies are likely to be excessive the price will be adjusted downwards.

In these circumstances the material included in this report should give a degree of sober confidence to pig breeders and feeders. On the basis of these figures it should be possible for the efficient producer to make a reasonable level of profit from this enterprise, while the new adjustable guarantee should discourage over-expansion and place emphasis on the progressive development of efficient pig production on the farm.

J. D. NUTT.

Advisory Economist.

COMMERCIAL PIG PRODUCTION

1959

INTRODUCTION

This report gives the results of an investigation into the costs, returns and profits from commercial pig production on 16 enterprises in the East of Scotland during 1959.

During this year there appeared to be a slight recession in the industry in general as shown by the reduced total numbers of sows in the United Kingdom at December 1959, which, compared to the figures for a year previously, fell by about 9 per cent*. Although this reduction in the size of the breeding herd could be considered to be the result of several factors, the chief cause undoubtedly was a lack of confidence in profitability during the year. This was substantiated by the results for an identical sample of enterprises in 1958 and 1959 given later in the report.

The Sample

All the enterprises in the sample, except one which produced weaners only, had both breeding and feeding herds, the weaned pigs being transferred to the feeding herds at from six to eight weeks of age, to be sold later either as baconers, porkers, heavy hogs or advanced stores.

Examination of the results showed that the production of bacon pigs was the main output from eight enterprises; from three it was porkers; two produced equal proportions of baconers and porkers; from two the output comprised advanced stores and one produced equal proportions of baconers, porkers and heavy hogs.

Broadly, the enterprises can be classified into two main groups, ten on farms described as cropping and feeding farms and six on small holdings. In the former group most of the farmers were able to appreciably reduce the average cost per cwt. meal equivalent of all foods fed by feeding home-grown grains and potatoes. In addition, as the pigs were housed in the original farm buildings, suitably adapted for pig production (except in the case of three enterprises for which the buildings had been specially constructed), they had a relatively low charge for capital depreciation. On all the enterprises in this group the pigs were looked after by hired labour, assisted by the farmer at such times as farrowings, week-ends and holidays. In contrast the small holdings grew and fed little or no home-grown food. In addition, all the buildings had been specially constructed; thus the charge for capital depreciation was relatively high. The management of the pigs on these holdings was mainly carried out by the farmer himself, assisted by members of the family.

The size of the breeding herd varied quite widely from herds based on less than 10 sows to herds based on over 50 sows. The figures in Table I illustrate these differences in size and also suggest that herds from 30-40 sows are most frequently met with. The average size for all the herds was 32 sows.

TABLE I. DISTRIBUTION OF BREEDING HERDS BY SIZE

AVERAGE SIZE = 32 SOWS

Number of Sows	Under 11	11-20	21-30	31-40	41-50	Over 50	TOTAL
Number of Herds	2	3	2	5	2	2	16

Breed of Pig /

* Commonwealth Economic Committee Bulletin. March 1960.

Breed of Pig

With the sale of bacon pigs making up such a large proportion of the total output of the majority of enterprises in the sample it was to be expected that the bacon types of breeding pig such as the Large White or the Landrace or crosses between these two breeds would be the most popular. That this was so is confirmed in the percentage distribution of the number of sows and boars of the different breeds in the sample shown in Table II.

TABLE II. DISTRIBUTION OF SOWS AND BOARS BY BREEDS

	Sows	Boars
	%	%
Large White	68	63
Landrace	7	37
Wessex	7	-
Large White X Landrace	18	-
	100%	100%

It can be seen that the Large White was the most popular breed comprising 68 per cent of the total number of sows and 63 per cent of the total numbers of boars, followed by the Landrace with totals of 7 per cent and 37 per cent respectively. Crosses between the two breeds accounted for a further 18 per cent of the total number of sows and there were Wessex sows on one enterprise (7 per cent).

COSTS, RETURNS, PROFITS

Although all the herds in the sample but one had both breeding and feeding herds, it was not possible to keep separate records of the individual items of cost for each type of herd (apart from the cost of foods). Total costs and returns could, therefore, only be estimated for each enterprise as a whole. Again it was difficult to make comparisons of the results for the different enterprises on a "per baconer" or "per porker" basis on account of the large variation in the type of pig produced. To overcome this difficulty the results have been expressed in terms of the output per average breeding sow in the herd, output being total pig sales, less purchases and adjusted for differences in the opening and closing valuations. This standard of measurement was considered more satisfactory than the per £100 output basis (used in the previous report) in view of the relatively small number of stores that were purchased for fattening; one exception being in the comparison of the changes in profits between 1958 and 1959 when the larger number of purchased stores in the former year that had been fattened to bacon weight, made measurement on a per sow basis less satisfactory.

Distribution of Profits

In the distribution of profits per sow given in Table III it may be seen that two enterprises sustained losses and that ten, or 62 per cent, earned profits of £21 per sow and over. The average profit per sow for the whole sample was £34:5s. and represents a total profit of £1096 for the average herd of 32 sows.

TABLE III. DISTRIBUTION OF PROFITS PER SOW PER ANNUM

	Losses	£1 to £20	£21 to £40	Over £40	Average £34:5s.
Number of Enterprises	2	4	5	5	16

Profitability /

Profitability Under Different Systems of Management

The effect of the differences in the system of management of the enterprises on cropping and feeding farms and on the small holdings is brought out in a comparison of the costs, returns and profits per sow for the two groups shown in Table IV. Table V shows the differences between these groups of certain efficiency factors which can be applied to pig production. The results for the single enterprise on a cropping and feeding farm producing weaners only have been excluded and are shown later in the report.

TABLE IV. COSTS, RETURNS AND PROFIT PER SOW UNDER DIFFERENT SYSTEMS OF MANAGEMENT

Costs, Returns and Profit per Sow	9 Enterprises on Cropping and Feeding Farms		Average of 15 Enterprises		6 Enterprises on Small Holdings	
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Net Food Costs -						
Purchased	97: 2		127: 3		172: 4	
Home Grown	49:12	146:14	31:16	158:19	5: 3	177: 7
Labour		19: -		26:10		37:15
Other Costs		22:16		27: 2		33:11
Total Net Costs		£188:10		£212:11		£248:13
Profit		44:19		34:11		19: -
Total Output per Sow		£233: 9		£247: 2		£267:13

First, comparing the individual items of cost, it may be seen that the net food cost per sow for the nine enterprises on cropping and feeding farms was £12:5s. below the average for all the enterprises and that for the six enterprises on small holdings it was £18:8s. above it. In Table V on page 4, which shows the various relevant efficiency factors for the two systems, it may be seen that the reduction in the net food cost for the enterprises on cropping and feeding farms was made possible, not only by a lower total weight of food consumed, less by 18 cwt. of meal equivalent, but also by a cheaper cost per cwt. of meal equivalent of all the foods fed - cheaper by 1s.1d. per cwt. With both systems having the same food conversion ratio this reduction in the overall food consumption was undoubtedly due to the reduced output per sow (reflecting the lower number of weaners per sow per year - less by 2.4) and despite the higher proportion of bacon pigs produced. The reduction in the cost per cwt. of all foods fed was achieved by feeding a higher proportion of home-grown foods.

Table IV shows that the differences in the labour costs per sow were also quite large, being £7:10s. below the average for all herds in the case of the enterprises on cropping and feeding farms and £11:5s. above it for those on small holdings - a difference of £18:15s. per sow in favour of the cropping and feeding farms. This relatively large difference in cost between the two groups may be seen in Table V to be mainly due to the greatly increased number of labour hours used for pigs on the small holdings, up by as much as 80 hours per sow. These holdings also had a higher cost per hour, more by 5d. It should be explained, however, that one of the main reasons for the greater number of labour hours for those enterprises on small holdings was the large proportion of the total work performed by the farmer or by members of the family, which, being unpaid, resulted in a tendence for a longer time to be spent on operations than was economically justifiable.

The /

The total other costs per sow (comprising such items as depreciation of buildings and equipment, veterinary expenses, carriage, repairs and sundry expenses) incurred by the enterprises in cropping and feeding farms was also below the average for all the herds, being less by £4:6s., whereas for those on small holdings it was £6:9s. per sow above it. This higher total of other costs for these enterprises was to be expected in view of the heavier capital cost for buildings which was greater by £80 per sow, as well as the necessity of purchasing nearly all the bedding straw used. In all, the total cost for the enterprises on small holdings was higher than for those on cropping and feeding farms by £60:3s. per sow.

The output per sow for the enterprises on small holdings was greater by £34:4s., for although they produced a smaller proportion of baconers at the same price per score live weight than the other group did, they had a larger number of weaners per sow - more by 2.4 and hence produced a larger number of store and fat pigs per sow per year. The greater output per sow on the small holdings was not, however, enough to offset their higher levels of cost. Thus the enterprises on cropping and feeding farms were more profitable by £25:19s. per sow.

It may be seen that the total costs for all the 15 herds averaged £212:11s. per sow, £158:19s. or 75 per cent of the total being for the cost of food. With the output per sow totalling £247:2s. this gave an average profit per sow of £34:11s.

TABLE V. FACTORS AFFECTING PROFITABILITY BETWEEN SYSTEMS

Efficiency Standards	9 Enterprises on Cropping and Feeding Farms	Average of 15 Enterprises	6 Enterprises on Small Holdings
Average Herd Size	36 Sows	33 Sows	29 Sows
Factors Affecting Food Costs "per Sow" for Whole Herd			
Total weight of Meal Equivalent per Sow, Breeding Herds only	30.2 cwt.	30.7 cwt.	31.5 cwt.
Cost per cwt. of Meal Equivalent, Breeding Herds only	29s.1d.	30s.1d.	31s.8d.
Total weight of Meal Equivalent fed to Breeding and Feeding Herds per Sow per Year	cwt. cwt.	cwt. cwt.	cwt. cwt.
Purchased	64	87	123
Home-Grown	47 111	31 118	6 129
Cost per cwt. of Meal Equivalent of all Foods fed	26s.5d.	26s.11d.	27s.6d.
lb. Meal per lb. Live Weight Gain	3.9	3.9	3.9
Factors Affecting Labour Costs			
Total Labour Hours per Sow	99 hours	131 hours	179 hours
Labour Cost per Hour	3s.10d.	4s.	4s.3d.
Output per £1 Labour	£12:6s.	£9:6s.	£7:2s.
Factors Affecting Other Costs			
Capital Cost of Buildings and Equipment	£69	£101	£149
Factors Affecting Output per Sow			
Weaners per Sow	15.3	16.3	17.7
Average Price per Score Baconer Live Weight	34s.2d.	34s.2d.	34s.2d.
% Total Sales by Value -			
Baconers	65%	52%	32%
Porkers	21%	29%	41%

FACTORS /

FACTORS AFFECTING PROFITABILITY WITHIN A SYSTEM

It has been shown that low total net costs per sow was an important factor affecting profits as between the two systems of management. What, however, are the factors affecting the level of profitability within a particular system? These are examined in a comparison of the costs, returns and profits per sow for the three most and the three least profitable herds on cropping and feeding farms shown in Table VI, as well as in the comparison of the relative efficiency standards shown in Table VII.

TABLE VI. DIFFERENCES IN PROFITABILITY WITHIN A SYSTEM

Costs, Output and Profit per Sow	Cropping and Feeding Farms			
	Three Most Profitable Enterprises		Three Least Profitable Enterprises	
	£ s.	£ s.	£ s.	£ s.
Net Food Costs				
Purchased	49:19		113:17	
Home-Grown	98: 9	148: 8	42: 7	156: 4
Labour		17:15		20: 6
Other Costs		21:15		28:15
Total Net Costs per Sow		£187:18		£205: 5
Profit		74:11		17:13
Total Output per Sow		£262: 9		£222:18

It may be seen that although the most profitable group had a higher output per sow, greater by £39:11s. this was achieved at a lower total level of costs, less by £17:7s. per sow. The greatest individual savings in cost were in the net food and total other costs, lower by £7:16s. and £7 per sow respectively.

With the profitable group feeding only a slightly smaller total weight of foods per sow per year (Table VII), the reduction in the cost of foods was chiefly due to the lower cost of meal equivalent which was less by 11d. per cwt. and made possible by feeding a greater proportion of home-grown foods. It may also be noted that the more profitable group had a lower food consumption per lb. live weight gain, less by .5 lbs. meal. In view of the greater number of weaners per sow and the higher proportion of baconers sold, this better live weight gain was mainly responsible for the reduced total weight of food fed per sow. Analysis of the individual items of cost included under total other costs, showed that the least profitable group had increases in all these items.

The greater output per sow for the profitable group was due to a slightly greater number of weaners per sow plus a greater proportion of bacon pigs in the total pig sales, greater by 14 per cent.

TABLE VII. /

TABLE VII. FACTORS AFFECTING PROFITABILITY WITHIN A SYSTEM

Efficiency Standards	Enterprises on Cropping and Feeding Farms	
	Three Most Profitable Enterprises	Three Least Profitable Enterprises
Average Herd Size	29 Sows	46 Sows
Factors Affecting Food Costs per Sow		
Total Weight of Meal Equivalent Fed	cwt.	cwt.
Purchased	29	76
Home-Grown	89	44
Total Meal Equivalent	118	120
Average Cost of Meal Equivalent	25s.2d.	26s.1d.
lb. Meal per lb. Live Weight Gain	3.6 lb.	4.1 lb.
Factors Affecting Output per Sow		
Weaners per Sow per Year	16.2	15.7
Price per Score Live Weight per Baconer	34s.1d.	34s.2d.
Percentage of Baconers Grading "A" and over	55%	63%
% Total Sales by Value		
Baconers	81%	67%
Porkers	7%	3%

SOME FACTORS AFFECTING PROFITABILITY

Food Costs

Although, as may be seen in Table V, there was a difference of 2.4 weaners per sow per year for the two systems of management, the amounts of food fed per sow per year to the breeding herds only varied by 1.3 cwt. In addition, as may also be seen in the same Table, the cost per cwt. meal equivalent fed differed by only 2s.7d. so it is apparent that little saving in the total cost per sow of the foods fed to the breeding herd per year could be made.

In contrast, in the fattening herds, all but one of the enterprises on cropping and feeding farms made appreciable savings in food costs by feeding home-grown foods. In addition, on all but one of the enterprises on small holdings a marked saving in the cost per cwt. of fattening meals was achieved by milling and mixing "straights" on the farm. Another important factor in reducing total food costs per sow was the good food conversion ratio achieved by some herds (see Table VII). The importance of attaining a good food conversion ratio is made clear if it is assumed, for example, that the two lots of enterprises compared in Table VII which show an average difference of $\frac{1}{2}$ lb. meal per lb. live weight gain in favour of the more profitable group, produced only baconers, that, on average, the weaners each weighed 35 lb. and all the pigs were sold at 200 lb. per head live weight. Provided there were no post-weaning deaths for either group then, on average, the most profitable group would consume 83 lb. less meal than the least profitable one for every bacon pig produced.

Weaners per Sow per Year /

Weaners per Sow per Year

With the total food consumed per sow by the breeding herd varying little with the average number of pigs weaned per sow, it is clearly advantageous to breed from a prolific strain. This is an important factor in achieving a good level of profitability (provided, of course, that the average weight per weaner is satisfactory, otherwise they may take an unduly long time to reach bacon weight). For example, as already mentioned, it appears possible that a relatively high output of weaners per sow can be obtained with only a relatively little increase in the food consumption per sow of the breeding herd. As the additional costs for labour and other costs will be relatively small (see Table IX), the increase in the profit per sow would be appreciable.

COSTS AND RETURNS PER BACONER

Although there were large variations in the type of pig produced it was nevertheless possible to estimate the costs, returns and profit per baconer for four enterprises producing mainly bacon pigs. The results are shown in Table VIII, alongside those of the corresponding figures for a sample of five enterprises in 1958 producing mainly baconers. Incidentally, four farmers produced records for both years.

TABLE VIII. AVERAGE COSTS AND RETURNS PER BACONER

	1958	1959
	£ s. d.	£ s. d.
Average Selling Price (Including Deficiency Payment)	17: 9: 3	17: 6: 3
Net Cost (Including Weaner Cost)	14:15: 9	14:17: 1
NET PROFIT	£ 2:13: 6	£ 2: 9: 2
OTHER DATA		
Average Live Weight	201 lb.	198 lb.
Price per Score Live Weight	34s.11d.	34s.11d.
Percentage Baconers Grading "A" and Over	55%	73%
lb. Meal per lb. Live Weight Gain	4.2%	3.8%
Weaners per Sow per Year	17.1	17.4

It may be seen that the profit per baconer in 1959 fell by 4s.4d., total costs having risen by 1s.4d. (despite an improvement of .4 lb. meal per lb. live weight gain in the food conversion rate) and the average selling price being lower by 3s. per head. As average price per score live weight remained unchanged (the reduction of 6d. per score in the quality premiums for bacon pigs at the 1959 Price Review being offset by the greater proportion of baconers grading "A" and over) the reduced price per baconer in 1959 was due to the lighter average weight per head, less by 3 lb.

COSTS AND RETURNS PER WEANER

The general policy adopted in the management of the single enterprise on a cropping and feeding farm producing weaners was to concentrate the farrowing on two periods of a week each year. All foods, apart from the feeding of potatoes to the empty sows, were purchased. After weaning at from 6-7 weeks, the young pigs were fed on weaner nuts until about 8-9 weeks of age. The sows were housed relatively cheaply in converted farm buildings and after weaning, given access to grazing. The costs and returns per weaner are shown in Table IX.

TABLE IX. /

TABLE IX. COSTS AND RETURNS PER WEANER

	£ s. d.	£ s. d.
Net Food Costs		
Purchased	3: 1: -	
Home-Grown	-: 5: 2	3: 6: 2
Labour		-:13: 5
Other Costs		-:10: -
TOTAL COSTS		£4: 9: 7
Less Appreciation of the Breeding Herd		-:11: 7
TOTAL NET COSTS PER WEANER		£3:18: -
PROFIT PER WEANER		1: 9: 8
PRICE PER WEANER SOLD		£5: 7: 8

Efficiency Standards	
Litters per Sow per Year	1.9
Weaners per Sow per Year	20.0
Output per £1 Labour	£8:18s.
Profit per Sow per Year	£29:13:4d.

By specialising in the production of weaners it has been possible to attain an output of £8:18s. per £1 labour and a profit of £29:13:4d. per sow which is rather less than the corresponding figures of £9:6s. and £34:11s. for all the enterprises possessing both breeding and feeding herds. In view of the relatively high number of weaners per sow per year which was 3.7 weaners above the average for the other enterprises, the output and profit standards appear to be on the low side.

CHANGES IN COSTS AND RETURNS PER £100 OUTPUT

It was mentioned earlier in the report that there had been a general reduction in profitability in 1959 compared to the level in 1958. An indication of this is shown in a comparison of the costs, returns and profits per £100 output for an identical sample of ten enterprises in 1958 and 1959.

TABLE X. /

TABLE X. CHANGES IN COSTS AND RETURNS PER £100 OUTPUT
TEN ENTERPRISES COMPARED

	1958	1959
	£ s. d.	£ s. d.
Net Food Costs	63:10: 7	63:18:10
Labour	9: 4:11	10: 5: -
Other Costs	9:18: 6	11:14: 2
Total Net Costs	£82:14: -	£85:18: -
Profit	17: 6: -	14: 2: -
Output	£100: -: -	£100: -: -
EFFICIENCY FACTORS		
Average Herd Size	38 Sows	35 Sows
Factors Affecting Food Costs		
lb. Meal per lb. Live Weight Gain	4.06 lb.	3.84 lb.
Cost per cwt. of Meal Equivalent of All Foods Fed	26s.8d.	26s.9d.
Factors Affecting Labour Costs		
Labour Cost per Hour	3s.11d.	4s.1d.
Labour Hours per £100 Output	47 Hours	50 Hours
Factors Affecting Output		
Weaners per Sow per Year	16.8	16.7
% Total Sales -		
a) Baconers	83%	64%
b) Porkers	11.5%	22%
% Baconers Grading "A" and Over	60%	47%
Average Price per Score Live Weight -		
Baconer	35s.1d.	34s.1d.
Porker	34s.4d.	33s.1d.

It can be seen that the total profit per £100 output fell by £3:4s., each of the items of cost showing increases. The greatest increase was in total other costs which rose by £1:15:8d. per £100 output, followed by labour costs up by £1:-:1d. Total net food costs rose by 8s.3d. One of the main factors responsible for the general increase in costs per £100 output was the reduction in the average price per score baconer live weight which was lower by 1s. The principal factor responsible for the increased cost of labour was the increase of 2d. per hour in the wage rate. Examination of the individual items of cost showed that the increase in total other costs was also partly due to an increased charge for depreciation of buildings and equipment resulting from the reduced average size of the breeding herd. It may be noted that there was an increase in the food costs per £100 output in 1959, despite a better food conversion rate, less by .22 lb. meal per lb. live weight gain.

SUMMARY

1. The sample studied consisted of 16 enterprises, ten being on cropping and feeding farms and six on small holdings, the main product being bacon pigs. The Large White was the most popular breed of pig.

2. Total costs per sow for the 15 enterprises with breeding and feeding herds amounted to £212:11s., £158:19s. or 75 per cent of which was the net cost of foods. The total output per sow totalled £247:2s., giving an average profit of £34:11s. per sow.

3. A comparison of the costs and returns per sow for these two systems of management showed that the enterprises on cropping and feeding farms were more profitable than those on small holdings by £25:19s. per sow; reduced total costs, lower by £60:3s. per sow, more than compensating for a reduced total output which was lower by £34:4s. per sow.

4. The three most profitable herds on cropping and feeding farms had both a lower total cost and a higher output per sow than had the three least profitable ones, the former being lower by £17:7s. and the latter greater by £39:11s. The former reduction was mainly due to lower food and other costs and the latter increase to the production of a greater proportion of baconers, as well as to a slightly greater number of weaners per sow per year.

5. The average cost of producing a bacon pig on four enterprises producing mainly baconers was £14:17:1d., the average selling price £17:6:3d. and the average profit £2:9:2d. This represents a drop in the profit per baconer of 4s.4d. compared to the corresponding figure for 1958.

6. In a case study of one enterprise producing only weaners the average cost was £3:18s. and the selling price £5:7:8d., giving a profit of £1:9:8d. per weaner.

7. A comparison of the costs and returns for an identical sample of ten enterprises in 1958 and 1959 shows that there had been a drop in profitability of £3:4s. per £100 output, the main increases in cost being in total other costs and in the cost of labour which showed increases of £1:15:8d. and £1:-:1d. per £100 output, respectively.

ACKNOWLEDGMENT

Grateful acknowledgment is made of the help given by the farmers who took part in the investigation and supplied the various records and other information and who always gave the investigator considerate and courteous attention on the occasion of his visits.

COSTING PROCEDURE

Sales

This is the net figure after commission etc. have been deducted. In the case of pigs sold through the auction market, it also included any guaranteed payments.

Purchased Pigs

The cost is the price paid at the time of purchase and does not include transport costs to the farm.

Output

This is the total sale of pigs plus the closing valuation less purchases of pigs plus the opening valuation.

Purchased Foods

These have been charged at the price paid plus any charges for milling and mixing of "straights".

Home Grown Foods

These have been charged at their estimated cost of production on the farm, plus the cost of any milling and mixing.

Unexpired Manurial Residues

Credit has been given for the residual value of foods. If manure was sold credit was given for its actual sale price.

Labour

This was charged at the rate paid and includes the value of any perquisites. Where the farmer looked after the pigs his time has been charged at standard rates.

Other Costs

These include the following :-

a) Grazing at cost.

b) Depreciation of Buildings and Equipment at standard rates.

c) Overheads, at agreed rates.

d) Veterinary Expenses.

e) Miscellaneous Costs - carriage, repairs, heating etc.

f) Purchased litter, at cost.

Meal Equivalent

Foods other than meals and grains were converted to meal equivalents at the following rates -

4 lb. Potatoes
2/3rd. Gallon Skim Milk } = 1 lb. meal

Food Conversion Ratio

This is the ratio of meal equivalent to live weight increase in the fattening section.

Managerial Salary and Interest on Capital

No charge has been made in the costs for managerial salary or interest on capital.