Poultry Cost Production
O.S.

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SURVEY OF POULTRY COSTS AND RETURNS

1951-52.

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SURVEY OF POULTRY COSTS AND RETURNS, 1951-52

Introduction

This 1951-52 survey of Poultry Costs and Returns summarises financial information obtained from 25 farms in Lancashire, Cheshire and Shropshire. Accounting periods are for twelve months, all ending on September 30th 1952, so that changes in prices over this period will have affected all farms to the same extent. Unfortunately the flocks of a number of co-operators were affected by the fowl pest outbreak of early 1951 and their results could not be included in this report.

The farms have been classified on a functional basis and divided into two groups, one of 14 non-accredited and the other of 11 accredited flocks. Another classification might have been made by dividing the sample into 15 specialist enterprises and 10 flocks kept on general farms, but the differences between two such groups in this sample are not of sufficient magnitude to warrant the distinction. Mixed farms do have the opportunity of growing part of their food requirements and might therefore be expected to have the advantage of a cheaper supply; such is not the case in this sample. Only six of the farms have any home grown foods available for poultry and except for one, where the amount fed exceeds the purchased quantity, it accounts for only a small proportion of the total foods used. Labour, however, being a more flexible factor on mixed farms, does give them a certain advantage over specialist enterprises. Work on the poultry can usually be dovetailed with other farm work and only the actual time thus spent need be charged, whereas the specialist farmer sometime has to employ full-time specialist labour and is himself usually regarded as fully employed in running the enterprise. The size of flock although it influences labour cost per hen on all farms will have a more marked effect on specialist enterprises. In this sample a specialist farm with an average flock of 400 birds and producing mainly commercial eggs, through having to utilise available family labour has a labour cost of 19/6 per hen while a general farm with an average flock of 465 birds has a labour charge of only 7/3 per hen. Both the ordinary and accredited groups consist of flocks of varying sizes ranging from under 100 to over 1000 birds. Table 1 sets out the distribution of the flocks for each group according to the size of the laying flock.

Table 1

Distribution of 25 flocks by number of hens per flock 1951-52

Hens per flock	Up to 100	101 to 200	201 to 300	301 to 500	501 to 750	751 to 1000	Over 1000	Total Flocks	Av. Hens per Flock
Group I (Ordinary)	1	4	-	5	2	2	-	14	392
Group II (Accredited)	-	-	3	2	3	2	1	11	587
Total	1	4	3	7	5	4	1	25	478

Group I of 14 ordinary flocks consists of eight general and six specialist farms whose main function is the production of eggs for ordinary consumption. Group II of eleven accredited flocks consists of nine specialist and two on general farms. On most of Group II farms the main function is the production of eggs with a view to meeting the demand from hatcheries. Two of the farms, however, have a further specialisation in that their main income producing activity is the production and sale of day old chicks and growing stock; some of the other farms in the group also obtain a substantial income from this source. Farms in both groups obtain an added income from the sale of culled hens.

Costs and Returns

Table II sets out the average income and expenditure per hen. The averages have been calculated by treating the farms in each group as one unit.

Costs are greater in Group II. The production of hatching eggs and the rearing of growing stock involves extra costs not borne by the ordinary egg producer. The laying flock has to be carefully selected and managed while the maintenance of stock cockerels is an added cost. These extra costs however bring in a higher income and the net result is an average profit of 9/4 per hen against 8/3 for Group I. These average results should be interpreted with care since they are only general measures of profitability when a number of farms are grouped together. A study of individual results (Table VII and VIII at the end of this report) shows the wide variation in costs, income and profit that occur in actual practice. Substantial losses

were made again this year by some farms while others have maintained or increased their already high level of profits with the result that the gap between the highest profit and the highest loss is a very wide one, £2.8.6 per hen for group I and £2.11.4 for group II.

Table 2

Average Income and Expenditure per hen for 14 Ordinary and 11 Accredited Flocks, 1951-52

	Group I Ordinary			Group II Accredited		
Income	£	s	d	£	s	d
Market Eggs	3	4	5	1	18	3
Hatching Eggs		-		1	3	2
Table Poultry		11	0		11	0
Day Old Chicks			5		5	4
Growing Stock			5	1	0	8
Miscellaneous			7			4
Produce to House			9			10
Farm Eggs Set			3		5	11
Livestock Appreciation		3	2		3	2
Total Income	4	1	0	5	8	8
Expenditure						
Foods	2	9	6	3	1	2
Hatching Eggs and Stock		6	4		6	5
Miscellaneous		2	5		6	0
Labour		11	6		16	4
Rent			8		1	1
Farm Eggs Set			3		5	11
Deadstock Depreciation		2	1		2	5
Total Expenditure	3	12	9	4	19	4
Profit		8	3		9	4
Average Number of Hens per Flock		392			587	
Average Number of Eggs per Hen		159			156	
Number of Flocks		14			11	

On Group I farms where the main concern is with the production of eggs for the table market the effects of certain management factors on profits can be more easily seen. In Table 3 an attempt is made to relate egg yields to other factors. For this purpose the 14 farms in group I are divided on the basis of egg yields into two groups A and B. A consists of six farms on

which the average yield is 165 per hen or over while B consists of the remaining eight farms with yields below 165. The averages for these two groups are so calculated that equal weight is attached to each flock.

Table 3

Certain Management factors in relation to egg yields for Two groups of commercial egg producers

GROUP	A 6 Flocks	B 8 Flocks
Average Egg Yield	193	135
Average Flock Size	420	370
Percentage Pullets in Flock	91.5	56.1
Average Profit per Hen	0 18 5	0 3 11 (Loss)
Expenditure		
Foods	2 5 9	2 1 8
Stock Replacement	14 6	3 6
Labour	11 10	12 3
Miscellaneous	3 2	2 5
Deadstock Depreciation	2 5	1 8
Livestock Depreciation		1 1
Total Expenditure	3 17 8	3 2 7
Income		
Eggs	3 13 0	2 8 4
Table Poultry	12 5	6 10
Livestock Appreciation	9 2	
Miscellaneous	1 6	3 6
Total Income	4 16 1	2 18 8

The results for the two groups show some remarkable differences. All the six flocks in A except one, are kept under an intensive or semi-intensive system, while in group B all the flocks except one which has a proportion in batteries are kept on free range.

Costs in general are greater for intensively kept flocks. The achievement of higher egg yields involves a higher food intake, and, in this sample, is also associated with a high proportion of pullets in the flocks, so that replacement costs are therefore higher. Furthermore, intensive systems entail a heavy initial investment in equipment and sometime in

housing but the costs of the additional investment are to some extent balanced by a lower labour cost. On the credit side, however, the higher egg yields coupled with a higher autumn production brings in a high income from eggs compared with group B, while the strict culling brings in a greater income from the sale of table poultry. The average profit of 18/5 per hen compared with a loss of 3/11 for group B, illustrates that well managed flocks whether on specialist or general farms can, and do, yield a substantial income from commercial egg production.

In group II the extreme range of costs and income are mainly due to the more diverse nature of the enterprises. In general profitability depends on the proportion of the eggs that are sold to hatcheries, but the specialisation on the sale of stock on two of the farms is responsible for the range in income from stock and for the range in expenditure on fedding stuffs. The results of the highest profit farm however illustrates the features of good mangement in the use of factors of production resulting in a high total income and a high profit margin. This more diverse nature of the enterprises in group II makes it less easy to define the general effect of certain factors on profitability.

Costs of Egg Production

Table 4

Costs of Egg Production for Group I
14 Ordinary Flocks

	Cost per Hen			Cost per dozen Eggs		
	£	s	d	£	s	d
Foods	2	9	6		3	5¾
Hatching Eggs and Stock		6	7			5½
Miscellaneous		2	5			2
Labour		11	6			9¾
Rent			8			⅛
Deadstock Depreciation		2	1			1¾
Gross Cost	3	12	9		5	1¼
Less Receipts other than from eggs		15	10		1	1¼
Net Cost	2	16	11		4	0
Egg Receipts	3	5	2		4	7
Profit		8	3			7

Table 4 gives a further analysis of the data for group I and is an attempt to assess the costs of egg production. The cost per dozen eggs has been calculated on the assumption that table poultry and other receipts are by-products of the main function of egg production and the income from them has, therefore, been deducted from the gross cost.

Because of the greater diversification of the enterprises and the specialisation on production and sale of stock, the data for group II would not give a valid result for the cost of egg production.

Financial Changes 1950-51 and 1951-52.

Table 5 gives the costs and returns per hen for an identical sample of 14 farms for which data are available for the two years 1950-51 and 1951-52. The averages have again been calculated by treating the 14 flocks as one unit in each of the two years. The sample contains the results of flocks from both the ordinary and accredited groups.

A study of table 5 shows that the two most important items of cost are feeding stuffs and labour. Labour has again increased slightly but because of the increased number of hens in 1951-52 the increase only amounts to 2d per hen over 1950-51. Foods usually account for about 60% of the total costs of maintaining a poultry flock and it is, therefore, natural that any marked changes in its cost will tend to have a substantial effect on the fortunes of poultry farmers. Since the removal of the subsidy, feeding stuffs costs have been constantly rising and a study of past years results indicate that this has been accompanied by constantly diminishing profits. The pegging of feeding stuffs prices in 1952 has however slowed down this upward trend of food costs to a certain extent. For the farms in table 5 the increase for 1951-52 has been only 16% compared with a 40% increase in 1950-51.

On the income side, increased prices for both commercial and hatching eggs has been responsible for a small increase in the income from these sources. Total expenditure however has increased by slightly more than total income which has caused a slight decrease from 12/8 to 12/3 per hen in average profit.

Table 5

Average Income and Expenditure per hen for an identical sample of 14 farms for the two years 1950-51 and 1951-52

	1950-51			1951-52		
	£	s	d	£	s	d
Income						
Market Eggs	1	19	11	2	2	0
Hatching Eggs		14	1		16	11
Table Poultry		12	10		11	3
Day Old Chicks		3	2		5	1
Growing Stock		17	4		17	5
Miscellaneous		-	-			5
Produce to House			10			10
Farm Eggs Set		1	11		4	4
Livestock Appreciation		2	1		4	3
Total Income	4	12	2	5	2	6
Expenditure						
Foods	2	8	0	2	15	10
Hatching Eggs and Stock		6	0		7	4
Miscellaneous		5	11		5	0
Labour		14	7		14	9
Rent			11		1	0
Farm Eggs Set		1	11		4	4
Deadstock Depreciation		2	2		2	1
Total Expenditure	3	19	6	4	10	4
Profit		12	8		12	2
Total Hens		6435			6634	
Average Number of Eggs per Hen		141			151	

Seasonability of Production and the Average Price received for Market Eggs

In last year's report it was pointed out that the income of a commercial egg producer is mainly affected (i) by egg prices and the total yield of his flock and (ii) by the seasonal variation of prices. An attempt was made by reference to differing seasonal yields on three farms to assess the effect of seasonal production on possible income. In 1950-51 the range of prices was from 3/7 to 5/- per dozen. The same method on the same three farms is used again to test the influence of the new range of prices i.e. from 3/7 to 6/1 per dozen on possible income for 1951-52.

Table 6 sets out the detailed results for the three farms. The

average monthly egg yields have been calculated as a percentage of the total annual egg yields; the percentages are expressed as the proportion out of 100 dozen eggs that are produced in each month. From this and average monthly prices a monthly income is obtained, and the sum of these twelve monthly figures gives the total annual income per 100 dozen eggs produced.

Farm B and C show the highest contrast in seasonal production. B produced 31.84% of the eggs in the September-December period and 40.59% in the March-June period while for corresponding periods C produced 16.7% and 48.28%. Despite its higher autumn production B's income per 100 dozen eggs was only 13/6 higher than C's on the range of prices in 1950-51. In this year 1951-52 for the same seasonal production B's income would have been £1.5.6¾ higher per 100 dozen eggs than C's and his average annual price per dozen would be 3d higher.

A high average price on a large total production will result in a high egg income. It is likely however, that high autumn yields involve higher costs but unfortunately there is no evidence to show how these extra costs compare with the extra income. Farms A and C have similar yields and it is unlikely that their costs differ greatly, yet although A produces only 5% more eggs in the Autumn than C, the average price is ¾d per dozen higher.

Table 6 shows that in general, the higher the proportion of eggs that is produced in Autumn, the higher is the average price received. This generalisation, however, ceases to be true after a certain level of yield is passed. Assuming a high yield and a maximum emphasis on Autumn production, the physical capacity of birds sets a limit to the number of eggs that can be produced in that season, and means that a high proportion must be produced in the lower priced seasons with a resultant lowering of the average annual price. It must not be assumed from this, however, that high yields mean lower profits; it pays a farmer to increase his yield up to the point where any further expense would only just be covered by the extra income.

Table 6

Seasonality of Production and the Average Price Received for Market Eggs.

MONTH	Average Price per Dozen		Farm A Non-Seasonal Production					Farm B High Autumn Production					Farm C Low Autumn Production				
			Eggs per Hen	Per cent Production	Receipts			Eggs per Hen	Per cent Production	Receipts			Eggs per Hen	Per cent Production	Receipts		
	s	d			£	s	d			£	s	d			£	s	d
October	5	6	5.85	4.86	1	6	9	20.43	9.74	2	13	6¾	4.40	3.44	0	18	11
November	6	0	5.13	4.26	1	5	6¾	17.40	8.29	2	9	9	4.40	3.44	1	0	7¾
December	6	0	6.72	5.58	1	13	5¾	16.49	7.86	2	7	2	5.27	4.14	1	4	10
January	5	4	9.79	8.12	2	3	3¾	19.13	9.11	2	8	7	10.40	8.14	2	3	5
February	4	4	11.00	9.13	1	19	6¾	18.74	8.93	1	18	8¼	11.51	9.02	1	19	1
March	3	7	15.09	12.52	2	4	10¼	24.16	11.51	2	1	3	13.92	10.91	1	19	1
April	3	7	16.53	13.72	2	9	2	22.15	10.55	1	17	7¾	15.59	12.22	2	3	9½
May	3	7	15.29	12.69	2	7	7	21.48	10.23	1	18	4¼	17.72	13.88	2	12	0½
June	4	0	8.24	6.84	1	7	4¼	17.41	8.30	1	13	2½	14.38	11.27	2	5	1
July	4	5	8.65	7.18	1	12	6½	9.77	4.66	1	0	7	12.40	9.72	2	2	11¼
August	4	6	9.89	8.20	1	16	10¾	10.21	4.87	1	1	11	10.39	8.14	1	16	7½
September	4	11	8.31	6.90	1	13	11	12.48	5.95	1	9	3	7.25	5.68	1	7	11¼
Total			120.49	100.00	22	0	11¾	209.85	100.00	22	19	11½	127.63	100.00	21	14	4¾
Average Price per Dozen:			4/5d					4/7¼d					4/4½				

Table 7
Individual Results 1951-52

Income and Expenditure per Hen for Group I, Ordinary Flocks.

Farm Number	1			2			3			4			5			6			7		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Income																					
Market Eggs	2	16	4	3	3	3	3	18	6	3	2	10	2	17	11	4	7	1	3	17	8
Hatching Eggs		-			-			-			-			-			-			-	
Table Poultry		5	6		7	4		11	3		14	3		8	9		16	10		12	2
Day Old Chicks		-			-			-			-			-			-			-	
Livestock		-			-			-			-				7		-				3
Miscellaneous		-			-			-			1	0		-			-			1	8
Produce to House			11		2	7			5		1	9		-			-				6
Farm Eggs Set		-			-			-			-			-			-			-	
Livestock Appreciation			7		6	8		9	1		-			2	2		-			6	7
Total Income:	3	3	4	3	19	10	4	19	3	3	19	10	3	9	5	5	3	11	4	18	10
Expenditure																					
Foods	1	18	10	1	7	4	2	5	4	2	1	0	2	3	7	2	11	4	3	7	7
Hatching Eggsand Stock		5	11		8	6		5	4		3	10		4	2		4	4		6	2
Miscellaneous		1	5		1	6		3	1		1	3			2		2	3		5	7
Labour		7	3		10	7		10	4		14	8		11	5		8	3		11	11
Rent			4		-				4		1	7			1			8		1	9
Farm Eggs Set		-			-			-			-			-			-			-	
Deadstock Depreciation			1		3	1		1	7		1	4			11		2	6		1	6
Livestock Depreciation		-			-			-			-			-			-			-	
Total Expenses	2	13	10	2	11	0	3	6	0	3	3	8	3	0	4	3	9	4	4	14	6
Profit		9	6	1	8	10	1	13	3		16	2		9	1	1	14	7		4	4
Loss		-			-			-			-			-			-			-	
Number of Hens	465			120			512			330			465			600			780		
Eggs per Hen	154			174			204			167			158			236			196		
Total Profit	£221			£173			£850			£264			£210			£1039			£173		

Table 7 Continued.

Farm Number	8			9			10			11			12			13			14		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Income																					
Market Eggs	2	19	6	1	3	7	3	8	8	2	5	4	1	17	2	2	13	2	2	13	5
Hatching Eggs		-			-			-			-			-			-			-	
Table Poultry		13	5		4	9		12	6		6	0		2	0		3	3		11	3
Day Old Chicks		-			-			-			5	1		-			-				7
Livestock			10		-			-				4		-			-			2	0
Miscellaneous			9		-			-				9		-			-			1	9
Produce to House			3		2	11			10		1	5		2	7		2	10			10
Farm Eggs Set		-			-			-			3	2		-			-				4
Livestock Appreciation		1	6		6	0	1	12	9		-			-			-			-	
Total Income	3	16	3	1	17	3	5	14	9	3	2	1	2	1	9	2	19	3	3	10	2
Expenditure																					
Foods	3	1	4	1	8	5	2	1	11	2	5	5	1	10	0	2	1	7	2	4	1
Hatching Eggs and Stock		3	7		3	3	2	18	8			6		-			5	4		5	5
Miscellaneous		2	7		2	2			6		2	2			4		1	9		2	5
Labour		10	2		13	2		15	3		19	6		9	4		15	6		11	11
Rent			3			2			3		1	4			1		-				2
Farm Eggs Set		-			-			-			3	2		-			-				4
Deadstock Depreciation		3	4		1	4		4	8		2	3		1	0		1	6		3	2
Livestock Depreciation		-			-			-			1	8		14	2		2	5			5
Total Expenses	4	1	3	2	8	6	6	1	3	3	16	0	2	14	11	3	8	1	3	7	11
Profit		-			-			-			-			-			-			2	3
Loss		5	0		11	3		6	6		13	11		13	2		8	10		-	
Number of Hens		850			102			180			400			60			130			493	
Eggs per Hen		158			82			179			127			111			150			143	
Loss.		£213			£57			£58			£281			£40			£57			-	
Total Profit		-			-			-			-			-			-			£56	

Table 8
Individual Results 1951-52

Income and Expenditure per Hen for Group II. Accredited Flocks

Farm Number	1			2			3			4			5			6		
	£	s	d	£	s	d	£	s	d	£	s.	d	£	s	d	£	s	d
Income																		
Market Eggs	1	15	0	1	10	3	2	9	5	1	19	1	2	4	3	1	13	4
Hatching Eggs	2	1	5		19	7		13	7	2	5	5	1	5	2	2	2	7
Table Poultry		19	6		8	4		6	0		11	3		18	1		12	4
Day Old Chicks			1		-			-			3	4		2	4		-	
Livestock		-			-			18	5		2	5		19	7		-	
Miscellaneous			4		-			-				8		3	6		-	
Produce to House			8		1	9			5			9			7			8
Farm Eggs Set		1	6		2	4		8	10		2	7		4	6		1	8
Livestock Appreciation		10	2		7	0		-			1	4		-			6	6
Total Income:	5	8	8	3	9	3	4	16	8	5	6	10	5	18	0	4	17	1
Expenditure																		
Foods	3	6	10	2	15	5	3	8	0	2	8	0	3	12	4	2	11	6
Hatching Eggs and Stock			6		1	0			4		3	3		-				5
Miscellaneous		4	7		1	4		7	0		5	5		4	6		2	5
Labour		13	11		17	1		15	6		17	2	1	5	5		12	6
Rent			7		1	0			10			7		1	2		1	6
Farm Eggs Set		1	6		2	4		8	10		2	7		4	6		1	8
Deadstock Depreciation		1	11		1	2		3	2		2	5		2	2			5
Livestock Depreciation		-			-			4	0		-			5	5		-	
Total Expenses:	4	9	10	3	19	4	5	7	8	3	19	5	5	15	6	3	10	5
Profit		18	10		-			-		1	7	5		2	6	1	6	8
Loss		-			10	1		11	0		-			-			-	
Number of Hens		780			221			650			298			280			720	
Eggs per Hen		168			125			173			184			167			173	
Total Profit		£735			-			-			£409			£34			£959	
Loss		-			£112			£358			-			-			-	

Table 8 Continued.

Farm Number	7			8			9			10			11		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Income															
Market Eggs	1	19	7	1	16	5	1	5	4	2	3	8	1	13	6
Hatching Eggs		3	5	1	16	2	1	6	9		-		2	0	6
Table Poultry		6	3		7	3		6	6		15	3		10	2
Day Old Chicks		-			1	11		-		1	14	2		-	
Livestock		-			11	11		2	7	2	0	1	7	1	9
Miscellaneous		-				2		-				7		-	
Produce to House		1	1		1	3		1	4			8			10
Farm Eggs Set		2	0		6	11			3	1	2	10		-	
Livestock Appreciation		-			-			1	8		4	6		19	7
Total Income:	2	12	4	5	2	0	3	4	5	8	1	9	12	6	4
Expenditure															
Foods	2	5	2	3	2	5	2	5	4	2	18	9	5	14	10
Hatching Eggs and Stock			2		-			3	0		9	1	2	18	9
Miscellaneous		3	3		3	3		4	3		12	7		14	1
Labour		8	8		18	8		14	5		11	5	2	7	1
Rent		1	1			9			3		1	10		1	9
Farm Eggs Set		2	0		6	11			3	1	2	10		-	
Deadstock Depreciation		1	6		4	0		1	11		4	11		2	6
Livestock Depreciation			8		7	2		-			-			-	
Total Expenses:	3	2	6	5	3	2	3	9	5	6	1	5	11	19	0
Profit		-			-			-		2	0	4		7	4
Loss		10	2		1	2		5	0		-			-	
Number of Hens		1200			520			360			930			500	
Eggs per Hen		116			171			120			159			159	
Total Profit		-			-			-			£1876			£183	
Loss		£609			£30			£91			-			-	