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WITHUING WEST OF SCOTLAND AGRICULTURAL COLLEGE ECONOMICS DEPARTMENT REPORT **APRIL**, 1951 No. I-1951 POULTRY FLOCKS, 1949-50. SOME COSTING FIGURES. FOREWORD. For a year ended on, or around, 30th September, 1950, the College had the co-operation of about 45 poultry-keepers in making an investigation into costs and returns. Rather less than half of this number had kept poultry costing returns for the College in previous years and the remainder of the records were obtained in response to the request of the National Farmers' Union of Scotland that poultry-keepers assist the College in an economic investigation starting with the year 1949-50. At this stage, records from 40 of the co-operating farms and holdings have been completed and averaged and a summary of the results is presented here. Both egg prices and feeding-stuffs prices are now higher than in the year reviewed. Acknowledgment is made, with thanks, of the assistance given by the poultry-keepers whose records form the raw material of this statement and whose ready co-operation and patience in dealing with much detail was greatly appreciated by the members of staff who prepared the accounts for the individual farms and holdings. THE METHOD OF GROUPING. The 40 enterprises from which results are incorporated here varied in type. Some were holdings with poultry as the sole, or main, enterprise, while others were accredited flocks or market-egg flocks kept on general farms. The variations in size are shown in one of the tables which follow. The differences in size, in type and in marketing outlet made it necessary to group the records before preparing average results. The method of grouping used, while not satisfactory for all purposes, was as follows: Group A.1-Accredited Flocks (excepting those accredited flocks where sales were mainly market eggs) with egg yields of 144 eggs or more per hen-9 flocks. A.2-Accredited Flocks (again excepting accredited flocks selling mainly market eggs) with egg yields of less than 144 eggs per hen-6 flocks. Group B-Flocks where all, or almost all, of the laying birds were housed in batteries-10 flocks. Group C.1—" Mainly Market Egg" flocks with egg yields of 144 eggs or more per hen—7 flocks. C.2—" Mainly Market Egg" flocks with egg yields of less than 144 eggs per hen—8 flocks. SOME PRELIMINARY POINTS. The methods by which the figures of profit or loss were arrived at and information on the principal costing charges made are given at the close of the report—but some preliminary explanations are necessary. Numbers of Hens.—This figure, required as a measure of flock size and for use in making several "per hen" calculations, is a reasonably accurate indicator of the number of laying birds carried. The numbers of adult laying stock and of pullets coming into lay were recorded by the majority of holdings with considerable accuracy and a record of sales, deaths and home-consumed birds withdrawn from the laying flock was also available. It was thus possible to obtain the number of "hen-days" monthly and also over the costing year, and from this total of "hen-days" the average numbers of laying stock were obtained. All calculations expressed "per hen" were based on this average. Yield Per Hen.—In most cases the daily layings provided the basis of the total egg production figure for the year and the number of hens (obtained as above) was used to calculate the average yield per hen. Revenue, Expenditure, Profit, Loss, Food Consumption, Etc., "Per Hen."—It has to be stressed that only with Group B—the battery flocks—do these (and other) figures expressed "per hen" represent the actual position "per laying bird," that is, the result which would be obtained if the laying birds were costed completely separately from the rearing of replacement stock. With all but the battery flocks, stock rearing (for replacement or for sale) was carried on and expenditure, weights of food consumed, etc., all include rearing costs as well as outlays made directly for the egg-producing birds. The calculation of such figures on a "per hen" basis is, in fact, merely a convenient way of bringing items of expenditure, receipt, etc., to a common standard. Profit or Loss.—In preparing the profit and loss statements for each holding, neither interest on capital nor the managerial work of the holder or farmer was charged among expenses. Depreciation on equipment was charged at the usual rates $(12\frac{1}{2})$ % was the rate applicable to much of the equipment). Other poultryducks, geese and turkeys—were generally of little importance but where some were kept, sales of such stock, or their produce, was omitted and a deduction made from expenses (principally feeding-stuffs and labour) to make the necessary correction.

All manual labour—hired, family and by farmer or wife—was charged. In some cases, especially with small flocks, the making of close estimates of actual working time on poultry proved to be difficult and it is not unlikely that the averages given for labour—both in money and in hours—represent some degree of overstatement.

FLOCK SIZE.

The majority of the flocks were of comparatively small size, the numbers coming into the various size groups being:—

No. of Flocks with:—		Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Up to 150 hens	• • • •	•••		3		
150-200 hens	•••	I	3	I	3	4
250-350 hens	•••	2	I	•••	Ī	Ī
350-500 hens	•••	5`	I	3	•••	2 .
500-750 hens	•••	I	•••	I	2	I
750-1000 hens	•••	•••	I	2	•••	•••
Over 1000 hens	•••	•••	•••	•••	•••	•••
Total	•••	9	6	10	7	8 =40
Average size of flock Total Hens Represented	•••	371 3338	375 2248	445 4447	311 2178	362 2896

Only 3 of the flocks costed carried over 750 hens, while 16 had only 200 hens or less.

YIELD PER HEN.

No. of Flocks with:—		Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Below 10 doz. (120 eggs) 10-12 doz 12-14 doz 14-16 doz 16-18 doz Over 18 doz. (216 eggs)	•••	 5 4	2 4 	 4 2 2	4 2	4
Average group yield per hen Total eggs produced (dozs.)		9 165 45,960	6 ————————————————————————————————————	179 66,246	7 ————————————————————————————————————	8 =40 112 26,926

SEASONALITY OF EGG PRODUCTION.

For the five groups, the percentage of the year's total production represented by the monthly layings was:—

			•	Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
October	•••	* ;		5.2	4.7	4.3	5.6	4.8
November	•••	•••	•••	4.6	4 I	6.6	4.5	3.2
December	•••	•••	•••	6∙0	5.7	8.5	5.5	4.7
January	•••	•••	•••	7.7	8.1	9.4	7.2	6.5
February	•••	•••	•••	8 ∙6	8.5	8.5	8.5	9.0
March	•••	•••	•••	12.1	12.9	10.1	12.0	12.9
April	•••	•••	•••	12.1	14.1	9.2	11.7	14.0
May	•••	•••	•••	11.0	12.0	9.3	10.5	13.5
June	•••		•••	9.6	9.6	8.6	9.9	11.0
July	•••		•••	9.0	8·o	8.3	9.0	8.6
August	•••	•••	•••	7.7	6.5	9.ō	8·1	6.7
September	•••	•••	• • • •	6.4	5.8	8.2	7.5	4.8
-								
		•		100%	100%	100%	100%	100%

During the costing year under review the period when packing station prices were at their lowest point (3/9d. per dozen) lasted from about mid February to late in August. While the above monthly percentages

With the Compliments of the College Economist and Staff.

West of Scotland Agricultural College,
6 Blythswood Square,
GLASGOW, C.2.

represent production, and not actual sales, it is of interest to show the percentage of the year's production which was obtained during the seven months, February to August.

Percentage of Year's Layings during February to August.

Group A.1			•••		•••	•••	70% 72%
Group A.2				•••	•••	• • • •	72%
Group B.				•••	•••	•••	63%
Group C.1		•••	•••	•••	•••	•••	70%
Group C.2	 •••	•••	•••	•••	•••	•••	76%

In contrast, December and January were months when the packing station price was at its peak for the year and in this two-month period, the battery group produced about 18% of the layings for the year.

PROFIT OR LOSS PER HEN.

In considering the averages of profit or loss, the manner in which the cost records were grouped must be kept in mind. Both of the A. groups—A.1. and A.2.—include only accredited flocks and in such cases hatching eggs, or day-old chicks or growing, laying or breeding birds made up a source of income additional to that from market eggs. In contrast, Group B. (the battery flocks) and Groups C.1. and C.2. represent flocks where practically all the income was from market eggs and flock culls. Included with the "market-egg" groups are a few flocks which, although "accredited," derived their income almost wholly from the sale of market eggs.

The group averages of profit or loss per hen were:-

No. of Flocks with:—				Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Profits of:—					. ———			
30/- or more, per hen	•••	•••	•••	I	•••	•••	2	•••
20/- to 30/- per hen	•••	•••	•••	2	•••	•••	I	•••
10/- to 20/- per hen	• • • •	•••	•••	2	•••	2	•••	•••
o/- to 10/- per hen	•••	•••		2	I.	4	2	3 .
Losses of:—								
o/- to 10/- per hen	•••	•••	•••	2	2	I	2	4
10/- to 20/- per hen	•••	•••	•••	•••	•••	2	•••	I
20/- to 30/- per hen	•••	•••	•••	• • •	•••	• • •	•••	•••
30/- or more per hen	•••	•••	•••	•••	3	I	•••	•••
				9	6	10	7	8
Average for Group:—								
Profit of	•••	•••	•••	13/3d	•••	•••	12/1ď	•;••
Loss of	• • •	•••	•••		3s 9d	1/3d	. • • •	4/3d

Working on group averages, A.I. (accredited flocks with yields of over 12 dozen eggs per hen) and C.I. (market egg flocks with yields of over 12 dozen eggs per hen) showed average profits of 12/- to 13/- per hen. For Group B. (the battery group), the average result was a loss of 1/3d per hen. Both of the groups relating to flocks with yields of less, than 12 dozen eggs per hen showed losses.

Within Group A.2., one flock with a very substantial loss considerably lowered the average return for

the group but even when this flock is excluded the average for the group was a loss of 15/6d per hen. It is to be noted, however, that this was the only group in which the amount of home-grown grain available was negligible. Also, with the Battery group, this same item represented a value of only 6d per hen per

STRUCTURE OF PROFIT OR LOSS.

The part played by "Revenue," "Expenditure," and the "Valuation Change" in determining the extent of the profit or loss in the groups was:-

Expenses and Costs, omitting all Labour 2 13/- 3 1/- 3 1/- 1 18/- 1 15/- BALANCE £1 10/ 11/- £1 5/- 7/- DEFICIT 1 0/- 1 4/- 12/- 13/- 11/- BALANCE 10/ 12/ BALANCE	•			_		Per Hen:—						
Expenses and Costs, omitting all Labour 2 13/- 3 1/- 3 1/- 1 18/- 1 15/- BALANCE				•								
DEFICIT <			 omitting			£4 3/- 2 13/-			£3 3/- 1 18/-	£2 2/- 1 15/-		
DEFICIT	DEFICIT	•••	•••	•••	•	•••	3/-	•••	•••	7/- II/-		
FROFII	Deficit Add Valu	 aation Up	•••		•••	 3/-	£1 7/- 3/-		•••	4/-		
				• '					•	4/-		

As already stated, some difficulty was experienced in assessing accurately the amounts of labour used on some of the flocks and in view of this the above statement shows the labour charge separately to indicate the extent of the charge made and to show the balance on the account before charging labour. The two high-yield groups—A.i. and C.i.—had balances of £1 10/- and £1 5/- respectively at that stage and group B. (the battery flocks) a balance of 11/- per hen.

A calculation per dozen of eggs produced gave:-

,								Average Yield per Hen.		rofit per Ooz. Eggs.	
Group A.1	•••	•••	•••	•••	•••	•••	•••	165		11½d	
Group A.2	•••	•••	•••	•••	•••	•••	•••	122	Loss	2/4d	
Group B.	•••	•••	•••	•••	•••	•••	•••	179	Loss	ıd	
Group C.1	•••	•••	•••	•••	•••	•••		164		$10\frac{1}{2}d$	
Group C.2	•••	•••	. •••	• • • •	•••	•••	•••	112	Loss	5 <u>₹</u> d	

It requires to be remembered that the profit shown for Group A.1 was not derived wholly from eggproduction; receipts of rather over £1 per hen being obtained from hatching eggs and day-old chicks in this group.

It is worth while making clear what the figures given as profit (in the groups which made profits) represent. As far as possible all manual labour (including family and farmer) was charged as an expense but no charge was made for managerial work or for interest on capital.

REVENUE.

Detail of revenue per hen and per dozen of eggs produced is given in Tables 1 and 2 in the Appendix.

The figures given as Revenue are made up of two sections—the actual cash income from sales plus the credits given for eggs and poultry produce used in the household and the manurial value of the feeding stuffs used. The Group A.I flocks—at approximately £4 per hen—had the highest income of any of the groups, but of this total, only £2 2/- was obtained from market eggs.

Figures for the individual groups are:-

	Group	Group	Group	Group	Group
	A.1.	A.2.	B.	C.1.	C.2.
Per Hen:— Income from Sales Credits	£4 o/-	£2 15/-	£3 9/-	£3 2/-	£1 19/-
	3/-	3/-	3/-	2/-	3/-
Total Revenue	£4 3/-	£2 18/-	£3 12/-	£3 4/-	£2 2/-

Prices Obtained.—All except one of the flocks costed were within "price-control" areas. The proportions of the output of market eggs sold during the higher priced periods varied. It was not possible to calculate an average price for the "table-poultry" sold as the types recorded under this name varied greatly in age, condition and price.

	Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Market Eggs (per dozen)	4/3d	4/1d	4/4d	4/4d	4/2d
Hatching Eggs (per dozen)	6/10d	6/6d	•••	•••	••••
Flock culls—each	7/6d	*	9/4d	8/11d	7/2d
Day-olds—each	2/7d	2/2d	•••	•••	•••
* N	ot available				

With regard to the average egg prices shown above, it has to be noted that in certain cases the revenue side of the cost record was based on an understanding that market egg sales would be recorded at "packing-station price."

EXPENDITURE.

The expenditure side of the individual flock accounts varied in content. For the complete holdings, the expenditure is almost wholly direct cash outgoings with an added estimate for the value of all family labour, but in these cases it was unnecessary to add any estimate for the share of farm "overhead" or "general expenses." With accounts for flocks on farms and for holdings flocks where only the poultry enterprise was costed, the actual cash outgoings were increased by estimates of the cost of home-foods, of family labour, of rent, of "overhead" share and of several other items. Tables I and 2 in the Appendix give the main headings under which expenditure was analysed.

The cost of feeding and the charge used for labour made up the two largest individual items of outgoings, with the exception of the battery flocks where the cost of replacement stock was second to the feeding-stuffs bill.

•			· ·	Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Per Hen:—		•						
Feeding	•••	•••	•••	£1 15/-	£2 4/-	£1 18/-	£1 3/-	£1 I/-
Labour	•••	•••~	•••	· I O/-	I 4/-	12/-	13/-	11/-
Stock Bought	•••	•••	•••	1/5	8d	19/3	2/9	1/4
All other Item	S	•••	•••	16/7	16/4	4/9	12/3	12/8
Total	•••	•••	•••	£3 13/-	£4 5/-	£3 14/-	£2 11/-	£2 6/-

Feeding: Average Expenditure.—Purchased feeding formed the largest single item of expense. If to this is added, at estimated cost, the home-grown foods used, the average expenditure on feeding, expressed per hen, varied between £1 12/- to £2. It has to be remembered that this figure is not the expenditure incurred to feed the average laying bird for a year; it represents the total food used for rearing and for egg production, expressed per hen. For Group B—the battery flocks—the average cost of £1 18/- per hen can, however, be taken as the approximate food cost per layer for the year.

Feeding: Prices and Consumption.—A few of the costing records failed to provide information on the weights of foods purchased and the averages which follow relate only to 38 flocks.

The averages of the in-buying prices of poultry foods (which, except in the battery flock group, include "rearing" and "growing" foods) and of the cost figures applied to home-grown grain, were:

Price (or Cost) Per Cwt.

							Puro Gr	has rain		Puro M	chas lash		Home Grain.
Group A.1	•••	•••	•••	•••	•••		£ı	6	4	£ı	7	10	15/9d
Group A.2	•••		•••	•••	•••	•••	I	2	9	I	8	7	
Group B.	•••	•••	•••	•••	•••	•••	I	6	4	I	9	3	19/9d
Group C.1	•••	•••	•••	• • • •	•••	•••		•••		I	9	0	18/od
Group C.2	•••	•••	•••	• • • •	•••	•••	I	3	I	I	8	7	18/6d
	-	_			•	•	. •			•	•		. C.1

The estimates placed on home-grown grain are based on crop-costing studies carried out as part of the investigational programme of this Department. The cost rates applied varied according to circumstances.

It is necessary to repeat that the costing year to which these figures relate was September, 1949, to September, 1950. After the annual price review in the Spring of 1949 and the removal of roughly half of the subsidy on farm feeding stuffs, prices rose and about six months of the costing year represents conditions after this rise. At the price-review in the Spring of 1950, the remaining subsidies on feeding stuffs were removed and a further rise in price came into operation. Thus the costing year includes two price periods and does not reflect the full effect over a year of the level of feeding stuff prices which ruled after April, 1950.

It was also possible to calculate an average of approximate food consumption per hen. While stocks of food on hand at the opening and closing dates have been neglected, they were generally small and would hardly affect the following figures:-

Food Used, Expressed in Lbs. per Hen.

					Purchased Grain and Mash.	Home Grain.	Total Grain and Mash.
Group A.1	 •••	• • • •	•••	•••	136	34	170 lbs.
	 	•••	• • •	•••	$171\frac{1}{4}$	•••	171¼ lbs.
Group B.	 		•••	•••	$136\frac{3}{4}$	$3\frac{1}{4}$	140 lbs.
Group C.1		•••	•••	• • • •	$77rac{ar{1}}{2}$	$69\frac{1}{4}$	146 <u>3</u> lbs.
Group C.2	•••	•••	•••		$79\frac{1}{2}$	$45\frac{1}{2}$	125 lbs.
Average—All	ps	•••	•••	•••	124	$25\frac{1}{2}$	149 $\frac{1}{2}$ lbs.

These averages are also based on only 38 records representing a total of 14,387 hens. Again, the weights given include foods used for chick-rearing and growing stock. Only with Group B. (the battery group) does the weight given relate almost completely to egg-producing foods. The various supplementary items such as grit, potatoes, greens, etc., are omitted from the above weights.

An estimate was also made, on lines similar to the above, of the approximate consumption of feeding

for each 12 dozens of eggs produced, omitting the supplementary foods.

•	00 1					Average Yield per Bird.	Weight of Grain and Mash per 12 doz. eggs.
Group A.1	•••			•••	•••	165 eggs	148 lbs.
Group A.2	•••	•••	•••	•••	•••	122 eggs	203 lbs.
Group B.	`		•••	•••	•••	179 eggs	112 lbs.
Group C.1	•••	•••	•••	•••	• •••	164 eggs	108 lbs.
Group C.2	•••	•••	•••	. • • •	•••	112 eggs Average all groups.	102 lbs. 130 lbs.

The figure for Group B. (the battery flocks) where the food weights almost wholly exclude rearing and growing foods, showed an average use of 1 cwt. of food for each 12 dozen eggs produced.

Labour.—The higher labour charges shown in the accredited flocks were to be expected in view of their hatching and rearing programmes. The average for the battery group was 12/- per hen but few of the flocks reached the size of unit at which the greatest economy of labour was to be expected.

The figures of "labour hours per bird"—at best an estimate difficult to obtain with complete accuracy and likely to vary widely for many reasons—when averaged out for the groups, were:—

	•		Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
Hours per Hen	•••		9	II	6	8	5
Hours per 12 doz. eggs	•••	•••	8	13	5	7	7

As a general average over 38 flocks for which this calculation could be made, labour use per hen averaged

out at 8 hours and, per 12 dozen eggs, at between 7 and 8 hours.

Tables 3 and 4 in the Appendix give some information on this point for certain individual flocks, while the average labour charges for each group have been stated in the section dealing with the "Structure of Profit or Loss."

SOME AVERAGES PER DOZEN EGGS PRODUCED.

It has already been stressed that only in Group B. (the battery flocks) did the costing records relate almost entirely to egg-production as distinct from the rearing of replacement pullets. Further, principally with Groups A.1 and A.2, some of the expenditure recorded was incurred for, and recouped by, the sale of day-olds and growing stock. In these cases it is not possible to separate off replacement costs or "sideline" costs and prepare a statement relating only to egg-production. With these qualifications in mind, which relate specially to Groups A.1 and A.2, some calculations per dozen eggs produced may be of interest.

	Group A.1.	Group A.2.	Group B.	Group C.1.	Group C.2.
•••	165	122	179	164	112
•••	$2/10\frac{3}{4}d$	4/4d	$2/6\frac{3}{4}d$	$2/4\frac{1}{4}d$	3/o <u>3</u> d
•••					1/2d
•••					$\frac{1}{2}d$
•••	8 <u>2</u> a	II‡a	1/60	5a	$8\frac{1}{4}d$
•••	5/3d	$8/4\frac{1}{2}d$	$\frac{-1}{4/11\frac{1}{2}d}$	${3/8\frac{1}{2}d}$	$\frac{-}{4/11\frac{1}{2}d}$
•••	2 ₄ a	40	 4a	•••	$\frac{1}{2}$ d
•••	•••	•••	•••	<u>₹</u> a	•••
•••	${5/0\frac{3}{4}d}$	8/o½d	4/11 ¹ / ₄ d	3/9 ¹ / ₄ d	4/11d
•••	$11\frac{1}{2}d$	•••	•••	$10\frac{1}{2}d$	•••
•••		2/4d	ıd	•••	$5\frac{1}{2}d$
•••	6/0 ¹ / ₄ d	$5/8\frac{1}{2}d$	4/10 ¹ / ₄ d	$\frac{-4}{7\frac{3}{4}}$ d	$\frac{-}{4/5\frac{1}{2}d}$
		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

In Group B.—the battery-flock group (and which includes 4 small flocks)—the average cost per dozen eggs produced, after charging all hired and family labour, was $4/11\frac{1}{4}$ d. For the purpose of arriving at an estimate of egg-production costs (including the cost of rearing the necessary replacement stock), Group C.I—the "mainly market egg flocks with yields of 144 eggs or more per hen"—presents fewest difficulties, but the figure of $3/9\frac{1}{4}$ d given above as representing approximate cost requires some qualification when the types of the individual flocks making up this group are examined. None of the 7 flocks in this group could be classified as a full-time specialist holding, concentrating on market-egg production. Three of the flocks were flocks on general farms and one of these flocks was situated in an area outwith egg-price control. Some details for the individual flocks in this group were:—

Code.					No. of Hens.	Yield per Hen.	Type.
							Electrican land association at 1
Α.	• • •	•••	•••	•••	71	218	Flock kept on land specially rented
В.		•••	•••	•••	167	159	Farm Flock
C.		•••	•••	•••	219	169	Farm Flock
D.	•••	•••	•••	•••	236	154	Farm Flock .
E.		•••	•••	• • • •	306	151	Poultry kept on a small-holding
F.					575	162	Flock kept on land specially rented
G.	•••	•••	•••	•••	604	171	Poultry kept on a small-holding

These details indicate that the group is not sufficiently representative for the $3/9\frac{1}{4}$ d per dozen to be taken without qualification as a typical average production cost in market egg flocks.

Combining Groups C.1 and C.2 gives 15 records made up of:-

		Farm Flocks	•••	•••	•••		7	
		Poultry on small-holdings	•••	•••	•••	•••	4	
		Flocks on specially rented		•••	•••	•••	3	
		Complete poultry-holding a	ccount	•••	•••	•••	I	
and a	an average of th	ese 15 records gave:—					•	
		Average Yield per Hen	•••	•••	•	134	eggs	
		Expenditure per dozen:—	-					
	•	Foods	•••	•••	•••		$2/8\frac{1}{4}d$	
		Labour	•••	•••	•••		$I/o_{\frac{3}{4}}d$	
		New Equipment	•••	•••	•••		√ ¼d	
		All Other Items	•••	•••	•••		4d 64d	
		Sub-Total				-	4/3½d	
		Less Valuation Up	•••	•••			4/32u	
		Add Valuation Down		•••	•••		neg.	
						-		
		Total		•••	• • • •		$4/3\frac{1}{2}d$	
		Profit	•••	•••	•••		3d	
		Loss	•••	••••	•••	•	•••	
		Revenue per Dozen	•••	•••	•••		4/6½d	

In this case, the approximate cost per dozen, including the rearing of replacement stock, on an average yield of 134 eggs per hen, averages out at $4/3\frac{1}{2}d$ and the average profit at 3d per dozen. The average size of flock over these 15 enterprises was about 330 hens.

COSTING METHODS AND CHARGES.

Some of the main points relating to accounting method, etc., have already been dealt with and a summary of the others is as follows. Home-grown foods were charged at estimated cost. Hired labour was charged according to the gross wage paid, plus an additional rate per hour to take account of "broken" time, holidays, etc. For farmers and family labour the following are indications of the rates applied:-

Male: Farmer	2/6 per hour.	Female: Wife	1/9 per hour.
Over 20 years	2/5 per hour.	Over 21 years	1/8 per hour.
15-16 years	1/1 per hour.	15-16 years	11d per hour.

The rent charge was made generally on the lines of charging a rental value per acre for land used wholly or mainly by the poultry. For insurances, the accounts of the complete holdings contain the total payments for fire and stock insurance while for farm flocks or other enterprise records, specific insurance on poultry equipment was charged. The fuel, light and power items were charged at actual or estimated cost, while the "repairs" item covers repairs to building, fences, drains—in total for the complete poultry holdings and for specific poultry expenditure only in the accounts for the other flocks. Horse work was charged at 1/3d per hour and tractor work at 3/9d per hour. The share of "overhead expenses" allocated to poultry was handled in various ways according to the circumstances of each flock. With the complete accounts of poultry holdings, this charge was unnecessary as all "direct" and "overhead" expenditure had already been included with normal expenditure, but with farm flocks, with flocks costed as only part of a holding and flocks carried on rented land adjacent to a dwelling house, the overhead charge was varied. All of these flock types were given an overhead charge at the rate of 3/4d per £ of all labour or, if car depreciation and running expenses had been fully charged in the accounts, at a lower rate. In some cases, an additional amount of "overhead" had been fully charged in the accounts, at a lower rate. In some cases, an additional amount of "overhead" was applied on a "per acre" basis.

With stock valuations the general procedure was to retain all the livestock classes at fixed per head values at both the opening and closing valuations. Equipment on hand at the opening date and new equipment purchased during the year was depreciated at the usual rates.

On the revenue side, income was entered at prices realised, or, as with certain market egg sales, at the appropriate packing station price. Eggs used in the dwelling house, or given as perquisites, were credited generally at 2/6d per dozen and poultry, similarly used, at about two-thirds of their market value. The unexhausted manurial values of foods fed were credited according to the rates given in the official tables, all sales of manure having firstly been removed from the account.

APPENDIX TABLES.

The Appendix contains four tabular statements as follows:

Table 1.—Financial Statement Per Hen, for 5 Groups.

Table 2.—Financial Statement Per Dozen, for 5 Groups.

Table 3.—Details of some individual "Farm Flocks" and "Specialist Producers."

Table 4.—Some Details of the Battery Flocks.

TABLE 1.

FINANCIAL STATEMENT PER HEN FOR 5 GROUPS.

Group A.1:—Accredited flocks. Yield over 144 eggs.
Group A.2:—Accredited flocks. Yield below 144 eggs.
Group B.:—Flocks wholly or mainly in Batteries.
Group C.1:—Mainly Market Egg Flocks. Yield over 144 eggs.
Group C.2:—Mainly Market Egg Flocks. Yield below 144 eggs.

	EXPENDITURE										R				
		A.1.	A.2.	В.	C.1.	C.2.					A.1.	A.2.	В.	C.1.	C.2.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		1 to 1			£ s. d.	£ s. d.	 £ s. d.	 £ s. d.	 £ s. d.
EXPENSES AND COSTS:—			•					INCOME:-			~	~	λ, ο. α.	, J. u.	χ, οι α:
Eggs	•••	0 0 1	0 0 1			neg.		Market Eggs	•••		2 2 1	187	3 1 10	2 17 8	1 16 1
Chicks	•••	0 0 6	0 0 3	0 1 7	0 2 1	0 1 3		Hatching Eggs	•••	`	0 18 9	0 8 9			0 0 1
Other Fowls	•••,	0 0 10	0 0 4	0 17 8	0 0 8	0 0 1		Clear Eggs			0 0 1	. 0 0 7			
Bought Foods	•••	1 15 2	2 3 9	1.17 8	1 3 3	1 0 9		Flock Culls	•••		0 3 1	0 4 6	0 4 8	0 2 4	0 1 10
Home Foods	•••	0 4 9	neg.	0 0 6	0 8 9	0 7 9		Day-olds	•••	•••	0 3 4	0 5 6		0 2 4	0 0 1
Hired Labour	•••	0 4 10	0 8 2	0 6 1	0 5 2	0 1 9		Other Poultry	•••	•••	0 11 4	0 6 5	0 2 5	0 1 9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Farmer and Wife	•••	0 13 5	0 15 7	0 4 9	0 4 10	0 8 2		Sundry Receipts	•••	•••	0 1 8	0 0 8	0 0 5	U 1. 9	0 0 2
Other Family Labour	•••	0 1 8	0 0 6	0 1 8	0 3 0	0 1 0		Equipment Sold	•••	•••					0 0 2
Rent and Rates	•••	0 1 2	0 1 3	0 0 4	0 0 9	0 0 7		_ - _							<u>——</u>
Insurance	•••	0 0 2	0.05	0 0 1	0 0 1	neg.	•						***************************************		
Fuel, Light, Power		0 0 9	0 2 0	0 0 4	0 0 3	0 0 3		SUB-TOTAL	•••	•••	£4 0 4	£2 15 0	£3 9 4	£3 1 9	£1 19 4
Repairs	•••	0 2 0 .	0 1 6	0 0 6	0 0 3	0 1 3									
Horse Work	•••	neg.		neg.	0 0 1	0 0 6									
Tractor Work	•••	. 0 0 1			neg.	0 0 3		CREDITS:—							
Sundry Expenses	•••	0 2 3	0 2 2	0 1 2	0 0 5	0 1 1	•	Eggs Used		•••	0 1 0	0 1 0	0 1 6	0 0 10	0 1 1
Share: Overheads		0 1 11	0 1 9	0 0 9	0 1 0	0 1 2		Poultry Used		•••	0 0 2	0 1 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccc} 0 & 0 & 10 \\ 0 & 0 & 2 \end{array}$	0 1 1
New Equipment	•••	0 2 9	0 7 2	0 0 10	0 0 2	0 0 4		Manurial Values	•••		0 0 2	0 1 6		· · · -	0 0 3
								Tylanunai values	•••	•••	0 1 4	0 1 0	0 1 1	0 0 9	0 1 0
Total	•••	£3 12 4	£4 4 11	£3 13 11	£2 10 9	£2 6 2		Total			£4 2 10	C2 17 9	C2 10 0	62 0 6	<u> </u>
OPENING VALUATION		$\stackrel{\sim}{2}$ 2 4	2 16 3	3 2 10	2 10 6	2 3 6		CLOSING VALUATI		•••		£2 17. 8	£3 12 2	£3 3 6	£2 1 8
,						2 5 0		CLUSING VALUATI	ON	•••	2 5 1	2 19 8	3 3 4	2 9 10	2 3 9
Profit	·	£0 13 3			£0 12 1			Loss				C1 2 10	50 1 6		
		20			5,0 12 1			T022	•••	•••		£1 3 10	£0 1 3		£0 4 3
TOTAL	•••	£6 7 11	£7 1 2	£6 16 9	£5 13 4	£4 9 8		Total			C6 7 11	C7 1 0	66.16.0	CT 10	
	•••	× 1 11	δ' 1 Z	£0 10 9	*> 12 4	** A O		TOTAL	•••	•••	£6 7 11	£7 1 2	£6 16 9	£5 13 4	£4 9 8

TABLE 2. FINANCIAL STATEMENT PER DOZEN EGGS FOR 5 GROUPS.

Group A.1:—Accredited flocks. Yield over 144 eggs.
Group A.2:—Accredited flocks. Yield below 144 eggs.
Group B.:—Flocks wholly or mainly in Batteries.
Group C.1:—Mainly Market Egg Flocks. Yield over 144 eggs.
Group C.2:—Mainly Market Egg Flocks. Yield below 144 eggs.

	EXPE	NDITURE				REVENUE.					
	A.1.	A.2.	В.	C.1.	C.2.		A.1.	A.2.	В.	C.1.	C.2.
Expenses and Costs:—	s. d.	s. d.	s. d.	s. d.	s. d.	INCOME:—	s. d.	s. d.	s. d.	s. d.	s. d.
	neg.		s. u.	s. u.	neg.	Market Eggs	3 0 3	2 10	$4 1\frac{3}{4}$	$4 \ 2\frac{1}{2}$	$3\ 10\frac{1}{2}$
Eggs Chicks	$0 0\frac{1}{2}$	neg. 0 0 1	0 1 1	0 2	0 1¾	Hatching eggs	1 41	0 101		· <u></u>	neg.
	$0 \ 0\frac{3}{4}$					01	neg.	$0 \ 0\frac{3}{4}$		·	
Other Fowls		0 01	$\frac{1}{2}$	-	neg.	TI 1 0 11-	$0 \ 2\frac{3}{4}$	$0 0_{4}$	0 33	0 2	0 21
Bought Foods	$2 6\frac{1}{2}$	44.	$2 \cdot 6\frac{1}{4}$	$1 8\frac{1}{2}$	$2 2\frac{3}{4}$		0 3			0 2	neg.
Home Foods	0 41	neg.	$0 0^{\frac{1}{2}}$	$0 7\frac{3}{4}$	0 10	Day-olds		$0 6\frac{1}{2}$	0 2	$0 1\frac{1}{2}$	$0 1\frac{1}{2} \Leftrightarrow $
Hired Labour	$0 4\frac{1}{4}$	$0 9\frac{3}{4}$	0 5	$0 ext{ } 4\frac{1}{2}$	0 21	Other Poultry	0 10	$0 7\frac{1}{2}$		0 12	
Farmer and Wife	$0 11\frac{1}{2}$	$1 6\frac{1}{2}$	0 33	0 4	$0\ 10\frac{1}{2}$	Sundry Receipts	$0 1\frac{1}{2}$	0 03	$0 0\frac{1}{4}$		0 01
Other Family Labour	$0 1\frac{1}{2}$	$0 0^{\frac{1}{2}}$	$0 1\frac{1}{4}$	$0 2\frac{1}{2}$	$0 1\frac{1}{4}$	Equipment Sold	neg.				
Rent and Rates	0 1	$0 1\frac{1}{2}$	0 01	$0 0\frac{3}{4}$	$0 0\frac{3}{4}$					-	
Insurance	neg.	$0 0^{1}_{2}$	neg.	neg.	neg.	Sub-Total	5 101	5 5 1	$4 7\frac{3}{4}$	4 6	4 $2\frac{1}{2}$
Fuel, Light and Power	$0 0\frac{3}{4}$	0 21	0 01	0 01	0 01	-					
Repairs	$0 1\frac{3}{4}$	0 13	$0 0^{\frac{1}{2}}$	$0 \ 0\frac{1}{4}$	$0 1\frac{1}{2}$						
Horse Work	neg.	`	neg.	neg.	0 03	CREDITS:—					
Tractor Work	neg.			neg.	$0 0\frac{1}{4}$						
Sundry Expenses	0, 2	0 21	0 1	0 01	$0 1\frac{1}{2}$	Eggs Used	0 1	0 11	$0 1\frac{1}{4}$	$0 0\frac{3}{4}$	$0 1\frac{1}{2}$
Share: Overheads	$0 1\frac{3}{4}$	0 21	0 01	0 1	$0 1\frac{1}{2}$	Poultry Used	neg.	0 1	0 01	$0 0\frac{1}{4}$	$0 0\frac{1}{4}$
New Equipment	$0 \ 2\frac{1}{2}$	$0 \ 8\frac{1}{2}$	0 03	0 01	$0 0^{\frac{1}{2}}$	Manurial Value	0 1	0 13	0 1	$0 0^{\frac{3}{4}}$	0 11
New Equipment	U 22	0 02	0 04	0 04	0 02	11441141141					
TOTAL	5 3	8 41/2	$\frac{-}{4 \ 11\frac{1}{2}}$	3 81/2	$\frac{1}{4} \frac{1}{11}$	Total	6 01	5 8½	4 101	$4 7\frac{3}{4}$	4 $5\frac{1}{2}$
OPENING VALUATION	3 1	5 6 1	$4 \ 2\frac{3}{4}$	3 81	4 8	CLOSING VALUATION	3 3 1	$5 \ 10\frac{3}{4}$	4 3	$3 7\frac{1}{2}$	$4 8\frac{1}{2}$
OTENING VIMOITION											
Profit	$0.11\frac{1}{2}$			$0 \ 10\frac{1}{2}$. –	Loss	. —	2 4	0 1	. 	0 5½
TOTAL	9 31	13 111	9 21	8 31	${9} {7\frac{1}{2}}$	TOTAL	9 3½	13 114	9 21	8 31	9 7½

TABLE 3.

DETAILS OF SOME INDIVIDUAL "FARM FLOCKS" AND "SPECIALIST PRODUCERS."

The "Farm Flock" figures represent the results from costings of a poultry enterprise on general farms.

The "Specialist Producers" represent the results from the financial accounts of small-holdings with poultry as the sole, or main, source of income.

, in the second	Code		No. of	Revenue	Yield per		Per Hen.	Labour	Charge.	Per Hen.
FARM FLOCKS.	No.	Group.	Hens.		Hen (Eggs).	Sales Exc	eeded Food Charge.	Total £.	Hours/Hen.	Profit or Loss.
	1 2 3	A.1 A.1 A.1	662 473 365	£5 8/- £3 6/- £3 18/-	180 156 177		£3 9 0 £1 6 8 £1 17 0	£869 £161 £239	14 <u>1</u> 3 5 <u>1</u>	£1 5 0 £1 3 0 £1 0 0
	4 5 6	C.1 C.1 C.1	236 219 167	£2 14/- £3 16/- £2 16/-	154 169 159		£0 17 6 £3 1 4 £0 6 0	£136 £73 £63	4 ³ / ₄ 3 ³ / ₄ 4 ¹ / ₄	£0 4 0 £2 6 0 £0 9 0 (Loss)
	7 8 9 10	C.2 C.2 C.2 C.2	472 425 241 193	£2 4/- £2 9/- £2 6/- £1 6/-	124 134 110 79	(—)	£0 18 8 £1 3 6 £0 3 7 £0 11 2	£199 £183 £80 £60	51 4 4 2	£0 3 0 £0 8 0 £0 8 0 (Loss) £0 3 0
SPECIALIST.										
	11 12 13 14	A.1 A.1 A.1 A.1	362 354 279 265	£3 17/- £4 0/- £5 9/- £3 12/-	154 147 183 176		£1 12 4 £1 18 0 £2 18 11 £1 17 2	£499 £567 £338 £245	$11\frac{1}{2}$ 11 11 $8\frac{1}{2}$	£0 3 0 (Loss) £0 5 0 £0 14 0 £0 7 0
	15 16 17	A.2 A.2 A.2	437 346 208	£2 16/- £2 10/- £4 6/-	132 128 139		£0 18 11 £0 10 6 £2 13 2	£405 £412 £448	8½ 10 18	£0 7 0 (Loss) £0 9 0 (Loss) £2 0 0 (Loss)
	18	C.2	211	£2 17/-	139		£0 5 5	£218	9	£0 3 0 (Loss)

Remarks.

Code No. 1.—Sales of hatching eggs, growing poultry and day-olds important.

Code No. 2.—Sales of hatching eggs of some importance but income from growing poultry and day-olds unimportant.

Code No. 3.—Sales of hatching eggs of some importance but income from growing poultry and day-olds unimportant.

Code No. 5.—Flock outwith egg-price control area.

Code No. 13.—Sales of hatching eggs important and of growing poultry fairly important.

Code No. 17.—Flock numbers being reduced during year.

It is to be noted that none of the above flocks are in the "Battery" group.

TABLE 4.

SOME DETAILS OF THE FLOCKS IN GROUP B—THE BATTERY FLOCKS.

					Per Hen.	Labo	ur Charge.	Per Hen.	
Code No.	No. of Hens.		Revenue per Hen.	Yield Per Hen (Eggs).	Sales Exceeded Food Charge.	Total £.	Hours/Hen.	Profit or Loss.	
19	962		£3 11 0	160	£1 8 1	£557	$\frac{}{4\frac{1}{2}}$	£0 14 0 (Loss)	
20	943		f4 6 0	219	£2 10 1	£491	$5\frac{1}{2}$	£0 3 0	
21	720		\tilde{f} 3 1 0	161	£0 14 5	£830	11	£0 2 0	
22	499		£2 15 0	147	£1 4 10	£90	$2\frac{1}{2}$	£0 17 0	
23	400		£4 8 0	197	£2 19 1	£209	$4\frac{1}{2}$	£0 4 0	
24	362		£3 4 0	172	£0 17 10	£269	6	£0 8 0 (Loss)	
2 4 25	157		f_{3} 6 0	194	\tilde{L}_1 2 0	£72	41	£0 11 0 (Loss)	
	145	',	~	163	$\tilde{\Gamma}$ 1 11 8	~ £89	5	£0 3 0	
26		: .	£3 10 0		f_1 0 5	£138	81	£1 11 0 (Loss)	
27 28	. 143 · 116	$\chi^{\hat{i}}$	£3 6 0 £4 2 0	173 219	£1 0 3 £2 4 4	£33	3	£0 18 0	

Remarks.

Code No. 19.—Some flock disturbance due to installing new equipment. Birds at closing valuation depreciated. Code No. 20.—Expenses include considerable sum for overdraft interest.

Code No. 21.—Complete holding account.

Code No. 22.—Battery flock on a dairy farm.

Code No. 23.—Battery flock on a farm.

Code No. 25.—Some flock disturbance due to installing new equipment.

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