



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

0.5
Report No.

G.49. (L)

CHARITY FOUNDATION OF
AGRICULTURAL ECONOMICS
LIBRARY
1953/54

UNIVERSITY OF DURHAM

FARM ECONOMICS BRANCH, KING'S COLLEGE
NEWCASTLE UPON TYNE



POULTRY MANAGEMENT SURVEY

Summary of Results from Some
Commercial Egg Flocks in the Northern Counties
1953/54

D.H. Dinsdale, M.A.

W.G.R. Weeks, B.Sc.

This document summarises in tabular form, results emerging from the fourth year's work of the Poultry Management Survey carried on by the Department of Agricultural Economics, King's College, Newcastle-on-Tyne.

This Survey is confined to non-accredited commercial laying flocks. In 1953/54, 52 such flocks were under review. 40 of these flocks operated throughout the year and 12 operated for part of the year only. A glossary of accounting methods and definitions of terms used is given later. This should be carefully studied before conclusions from the tabulated results are made. Except for the comments on averages immediately below, ~~textual~~ discussion of the results has been omitted.

Significant questions of principle affecting the compilation of the tables and the interpretation of results were discussed at some length in the previous year's report.* Contributors to the Survey have had that report and will find it useful to read it again.

* * * * *

The one word common to all the tables is AVERAGE. As this report has been prepared principally for the benefit of co-operators in the Survey, a few remarks about averages may be useful. The averages given here describe what forty poultry keepers, taken one with another, achieved with their flocks in 1953/54. Individually some did much better than others. If all had done as well as the best, the average results would have been much better. The averages therefore, are not to be looked upon as targets, or goals to aim at, or performance levels with which to be satisfied. They are only general guides for comparative judgments, but none the less, useful. Even so, the mathematics of averages are not everyone's cup of tea. The averages used here are practically all simple "arithmetic means", obtained by adding numbers of items into a total and dividing by the number of items. This is the kind of average most people use and think they understand. It is not always the best kind of average to describe a general result or convey a general picture. If bigger samples of flocks had been available it might have been possible to use other kinds of averages and go to the trouble of explaining them in detail.

As things are, two points about simple arithmetic averages may be stressed. First, an arithmetic average is not to be accepted as a reliable indicator of what might be expected in an individual case, without first considering the range and distribution of the items which have been averaged.

Second, averages such as those given herein are related to, and conditioned by, the scale of operations. Table 3 provides a useful illustration of the first of these two points. It tells us that the "average Net Profit per 100 layers for battery flocks in 1953/54 was £76." If we now ask what are the chances that any particular battery flock attained this profit and examine the distribution of profits flock by flock amongst the 17 from which the average was calculated, it is evident that, in fact there were 10 chances in 17 that profits per 100 layers were over £90 and 5 chances in 17 that they were less than £40. So far as this sample can help us, there was a 15 to 2 chance of making a loss, and these are not such long odds that they can be accepted lightly. Not one flock actually made the

* G 46. An Economic Study of Some Commercial Egg Flocks in the Northern Counties 1952/53.

average of £76 profit per 100 layers, and if profits are considered in "steps" of £10, there was not even a clear "most common" group within the 17 flocks.

Table 5 may be used to illustrate the significance of scale of operation in relation to "average".

Again using the battery flocks, it appears that, on average, the total cost per 100 layers was £298, and the egg sales revenue £374. These two averages however, are related to a "scale" indicated by an average flock of 482 layers over the year. Altering the size of the flock however, would not change all items of cost in the same proportions. It cannot be assumed, for example, that an average flock of 964 layers (twice the size of the sample average) would have had total costs of 2 x £298 or egg revenue of 2 x £374. It could be expected that the major item of cost - feeding - would rise as the number of birds was increased but it could also happen that the efficiency of feeding the bigger number would fall and feeding cost per bird rise. Similarly, it might be that the person looking after the 480 flock could just as effectively look after twice the number of birds in exactly twice the amount of time. If so, labour cost per bird would be the same for the 480 flock as for a 960 flock. Most people would agree however, that this is unlikely with the battery system, which is designed to achieve economy in labour (amongst other things). It is more probable that, as the flock was increased, the labour time required (and the cost of labour) would increase more slowly so that labour cost per bird would tend to fall.

Similar lines of reasoning can be applied to other systems of management and to other items of cost and output.

The general points emphasised here are that each arithmetic average is conditioned by the scale of operation to which it relates, and before final conclusions are made from averages, knowledge of the range of individual items is desirable.

* * * * *

ACCOUNTING DEFINITIONS

Flock Valuations. Mature pullets are valued uniformly at 15/- a head and hens at 7/6d. a head.

Feeds Purchased are charged at net delivered cost (i.e. less discounts, if any).

Grain, home-grown, is charged uniformly at 25/- per cwt.

Labour. Hired, is charged at actual wages rates.
Family, " " " 2/6d. per hour.

Tractors. Use of tractors is charged uniformly at 4/- per hour.

Plant Depreciation is by diminishing instalments at the rate of 12½%. Where existing farm buildings are used, without modification (as for deep litter, etc.) no depreciation is charged. Where modification has been made, the costs involved have been written off at the same rate as for other plant and equipment.

Rent. No rent is charged. The reasons are given fully in Report G.46, page 3. Briefly, diversities in farm to farm circumstances prevent the use of any formula which would reasonably measure this item as between one farm and another. By any formula the charge would not amount to more than a £ or two per 100 layers.

Average Flock. The year is divided into 13 periods of four weeks. For each period the average flock is the sum of the opening and closing numbers divided by 2. The year's average flock is the sum of the thirteen four-weekly averages divided by 13.

Egg Production Rates. Seasonal rates are got by dividing total eggs produced in the period by the average number of layers during the period. Annual production divided by the year's average flock gives the average production per layer over the year.

Food Consumed. Average food consumption per bird is calculated in the same way as average egg production.

House Credits. Birds consumed by the operator's household are credited at appropriate rates, mostly between 7/6d. and 10/- a head. Eggs are credited at 4/- per dozen.

Gross Output is the sum of sales of birds and eggs plus any increase, or less any decrease in the valuation of birds on hand at the beginning and end of the year. Inputs related to this definition of Gross Output will include the cost of birds added to flocks during the year.

As the flocks involved are all commercial egg producing flocks, an alternative measure of Output is the Egg Sales Revenue (including eggs consumed by the household). Where this measure is used, the transactions in birds are regarded as flock maintenance operations and reduced to a single figure referred to as Net Flock Depreciation or Appreciation. This figure is the difference between Opening Valuation plus additions of birds, and Closing Valuation plus disposals of birds.

In the majority of cases there is Net Flock Depreciation and this is shown as an input item. In a few cases (battery flocks) where there is Net Flock Appreciation, the amount is added to Eggs Sales Revenue.

Which of the alternative definitions is being used will be apparent from the context and lay-out of the tables.

* * * * *

In two appendices are given details of average costs of rearing pullets and one example of turkey rearing costs and returns.

* * * * *

TABLE 1. THE SAMPLE : BY FLOCK SIZE and MANAGEMENT SYSTEM

Size Limits	Battery		Deep Litter		Free Range	
	Full Year	Part Year	Full Year	Part Year	Full Year	Part Year
Under 50	-	-	-	1	-	-
50 and under 150	4	1	2	-	3	1
150 " " 200	1	-	7	3	2	1
200 " " 250	2	1	2	2	2	-
250 " " 300	-	-	1	-	2	-
300 " " 500	2	-	1	1	-	-
500 " " 750	5	1	1	-	-	-
750 " " 1000	-	-	-	-	-	-
Over 1000	3	-	-	-	-	-
No. of Flocks	17	3	14	7	9	2
Av. No. of Layers	482	312	223	203	176	149

Flock Size is expressed as the Average Number of Layers over the year, calculated as described at the head of this page.

TABLE 2. TRADING ACCOUNTS IN DETAIL

Per 100 Layers. Full Year Flocks

I N C O M E	B A T T E R Y			D E E P L I T T E R			F R E E R A N G E		
	17 Farms			14 Farms			9 Farms		
		£. s.			£. s.	£. s.		£. s.	£. s.
Eggs: Packing Station Doz.	1693	367.17.		1343	290. 6.		1287	269. 4.	
Other Sales ... "	33	5.18.		96	23. 6.		139	29.13.	
House Consumption"	3	10.		18	3.10.		15	3. 1.	
Total						317. 2.			301.18.
Fowls: Hens Sold No.	94	42.14.	374. 5.	68	28.10.		52	19. 3.	
Pullets Sold ... "	-	-		1	12.		1	1. 2.	
Other Sales "		1		3	1. 8.		12	7.18.	
House Credits .. "	3	1. 4.		3	1. 0.		1	7.	
Total			43.19.			31.10.			28.10.
Stock Valuation Increase ..			6. 6.			-			-
Total Income			424.10.			348.12.			330. 8.
Margin, being Loss						-			-
E X P E N S E S									
Stock additions	128	97. 5.	97. 5.	86	64. 5.	64. 5.	66	47.18.	47.18.
Meals & Pellets Cwts.	101	181.17.		70	127. 8.		53	99. 9.	
Grain: Home-grown ... "	8	10.19.		23	28.18.		45	56.10.	
Purchased "	2	2.10.		9	12.10.		3	4.14.	
Grit	5	2.16.		4	2. 9.		5	3. 3.	
Other	-	-		2	2. 2.		1	1. 4.	
Total			198 2.			173. 7.			165. 0.
	Hrs.			Hrs.			Hrs.		
Hired Labour	174	18.17.		28	2.15.		-	0.	
Family Labour	128	15.19.		172	21. 8.		336	42. 1.	
Total Labour			34.16.			24. 3.			42. 1.
Horse & Tractor	-	-		-	-		-	-	
Fuel	-	1. 8.		-	1.16.		-	8.	
Miscellaneous	-	1.17.		-	4.		-	17.	
Depreciation of Plant	-	14.15.	18. 0.	-	6. 4.	8. 4.	-	6. 7.	7.12.
Stock Valuation Decrease...						8.17.			7. 9.
Total Expenses			348. 3.			278.16.			270. 0.
Margin, being Profit			76. 7.			69.16.			60. 8.

TABLE 3. RANGE IN NET PROFITS AND NET FAMILY INCOMES
Per 100 Layers

Scale	Net Profit			Net Family Income		
	Battery	Deep Litter	Free Range	Battery	Deep Litter	Free Range
Loss £40 and over	1	-	1	1	-	-
" £20 to £40	1	-	-	1	-	-
" Under £20	-	1	2	-	-	-
Profit under £20	1	-	-	-	1	2
" £20 - £40	2	1	-	-	-	-
" £40 - £50	-	2	-	2	-	-
" £50 - £60	-	1	-	-	2	-
" £60 - £70	1	3	1	1	1	1
" £70 - £80	-	1	1	1	3	-
" £80 - £90	1	1	-	1	-	-
" £90 - £100	4	2	1	1	3	-
" £100 - £120	3	-	1	4	-	2
" £120 - £140	-	1	2	1	2	2
" £140 - £160	3	1	-	3	1	-
" £160 - £180	-	-	-	-	1	1
" £180 - £200	-	-	-	-	-	1
" over £200	-	-	-	1	-	-
Average Net Profit & Net Family Income per 100 Layers	£76	£70	£60	£92	£91	£102
No. of flocks	17	14	9	17	14	9

TABLE 4. TRADING ACCOUNTS. SIMPLIFIED into GROSS OUTPUT, NET INPUTS, NET PROFITS, and NET FAMILY INCOMES

	BATTERY	DEEP LITTER	FREE RANGE
Number of Flocks ...	17	14	9
Average Layers per Flock	482	223	176
Gross Output	£ 424	£ 349	£ 330
Inputs	348	279	270
NET PROFIT	76	70	60
Add Back Family Labour charged as Input ...	16	21	42
NET FAMILY INCOME ...	92	91	102
Gross Output per £100 Input	122	125	122
Inputs per £100 Gross Output	82	80	82

TABLE 5. TRADING ACCOUNTS IN TERMS OF
EGG SALES REVENUE and COSTS

	Battery			Deep Litter			Free Range		
Number of Flocks	17			14			9		
Year's Average Layers per flock	482			223			176		
Egg Sales Revenue (Ouptut)	£	£	%	£	£	%	£	£	%
		374			317			302	
Costs (Inputs)									
Feeds	198		66.4	173		70.0	165		68.2
Labour	35		11.8	24		9.7	42		17.4
Fuel & Miscellaneous .	3		1.0	2		.9	1		.4
Plant Depreciation ...	15		5.0	6		2.4	7		2.9
Net Flock Depreciation	47		15.8	42		17.0	27		11.1
		298	100		247	100		242	100
Profit		76			70			60	
Add back Family Labour		16			21			42	
Net Family Income		92			91			102	
Egg Revenue per £100 Total Costs		126			128			126	
Total Costs per £100 Egg Revenue		80			78			79	

Tables 4 and 5 are derived from Table 2. In Table 4, Gross Output is the total revenue from eggs and birds plus the flock appreciation (Batteries) and less the flock depreciation (Deep Litter and Free Range). Birds added during the year appear as inputs.

In Table 5 the transactions in birds are treated as flock maintenance and reduced to a single figure which is the difference between (a) Closing Valuation + Sales of Birds and (b) Opening Valuation + Additions of Birds.

Details of these calculations are in Table 6.

TABLE 6. NET FLOCK DEPRECIATION
Per 100 Initial Layers

	Battery		Deep Litter		Free Range	
	£		£		£	
Opening Valuation	64		72		60	
Additions	97	161	64	136	48	108
Sales	44		31		29	
Closing Valuation	70	114	63	94	52	81
Net Depreciation		47		42		27

TABLE 7. TOTAL TURNOVER IN LAYERS

	Battery	Deep Litter	Free Range
Layers @ 1st Oct. 1953	7,748	3,220	1,876
Layers added	10,652	3,040	1,119
TOTAL INTAKE	18,400	6,260	2,995
Layers Sold	7,760	2,369	913
Layers died	1,381	356	337
Layers @ 30 Sept. 1954	9,259	3,535	1,745
TOTAL OUT-TURN	18,400	6,260	2,995
Deaths as % of Intake	7.5%	5.7%	11.2%
Closing Nos. as % of Opening Nos.	119%	110%	93%

TABLE 8. TURNOVER IN LAYERS DURING 24 WEEKS
FROM BEGINNING OF OCTOBER 1953

	Battery	Deep Litter	Free Range
Opening Numbers	100	100	100
Layers Sold	29	17	17
Layers died	6 35	6 23	7 24
	65	77	76
Layers added	43	12	8
Numbers after six 4-weekly periods	108	89	84

Broadly the first six four-weekly periods of the year constitute the periods of high egg prices. The table reflects differences in replacement policies during this period. Total revenue depends, not only on rates of egg production per layer but also on numbers of layers.

Seasonal changes in flock numbers; rates of egg production; egg prices and their combined effects on revenue are shown comparatively in Table 9.

The seasonal picture of culling and replacement of layers is given in Table 10.

TABLE 9.

PRODUCTION PER LAYER : FLOCK CHANGE : TOTAL PRODUCTION AND REVENUE IN 4-WEEKLY PERIODS

∞

(From an initial flock of 100 layers)

Period (28 days)	* Price per doz.	BATTERIES				DEEP LITTER				FREE RANGE			
		Eggs per Bird	Birds	Prod'n. Dozs.	Revenue	Eggs per Bird	Birds	Prod'n. Dozs.	Revenue	Eggs per Bird	Birds	Prod'n. Dozs.	Revenue
					£. s. d.				£. s. d.				£. s. d.
1	5/-	14.63	100	122	30.10. 0.	11.89	100	99	24.15. 0.	9.88	100	82	20.10. 0.
2	5/2	15.75	108	142	36.13. 8.	13.66	106	121	31. 5. 1.	9.50	99	78	20. 3. 0.
3	5/-	17.64	108	159	40. 8. 3.	15.84	104	137	34.16. 5.	11.16	94	87	22. 2. 3.
4	4/9	17.22	107	154	36.11. 6.	14.99	101	135	32. 1. 3.	12.88	90	97	23. 0. 9.
5	4/1	17.12	104	148	30. 4. 4.	15.75	99	130	26.10.10.	12.86	86	92	18.15. 8.
6	3/9	16.79	103	144	27. 0. 0.	15.18	93	118	22. 2. 6.	16.07	83	111	20.16. 3.
7	3/6	17.26	104	150	26. 5. 0.	14.97	84	105	18. 7. 6.	19.74	72	118	20.13. 0.
8	3/6	17.38	102	148	25.18. 0.	13.89	76	88	15. 8. 0.	18.58	67	104	18. 4. 0.
9	3/6	17.08	94	134	23. 9. 0.	13.00	88	95	16.12. 6.	16.87	62	87	15. 4. 6.
10	3/9	15.22	87	110	20.12. 6.	12.55	84	88	16.10. 0.	15.90	54	72	13.10. 0.
11	4/2	15.32	84	107	22. 5.10.	10.97	70	64	13. 6. 8.	15.73	47	62	12.18. 3.
12	4/8	13.96	95	111	25.18. 0.	10.07	70	59	13.15. 3.	13.32	56	62	14. 9. 3.
13	4/11	13.18	106	116	28.10. 4.	11.02	83	76	18.13. 8.	12.11	64	65	15.19. 7.
Year		15.13		1745	374. 6. 5.	12.37		1315	284. 4. 8.	13.15		1117	236. 6. 6.

* Realized prices averaged over all flocks.

The table assumes culling and replacement policies and egg production rates as for the flocks under review.

TABLE 10. SEASONAL TURNOVER IN LAYING FLOCKS

Layers at 1st Oct Periods (28 days)	BATTERIES (²⁰ 17 flocks)				DEEP LITTER (²¹ 14 flocks)				FREE RANGE (¹¹ 9 flocks)			
	Additions	8,383	Sales	Deaths	Additions	4,570	Sales	Deaths	Additions	2,272	Sales	Deaths
1	939		345	74	145		48	44	181		66	31
2	1022		376	90	326		53	52	-		36	33
3	292		332	84	49		140	61	-		83	27
4	430		405	93	2		61	37	-		56	27
5	108		423	96	-		34	45	-		84	18
6	787		566	87	-		456	43	-		67	25
7	813		446	108	49		354	36	-		224	73
8	24		760	118	120		258	25	30		67	27
9	413		987	109	791		158	24	-		139	22
10	1473		1568	135	530		1154	37	-		149	23
11	504		640	135	261		606	29	38		143	28
12	3241		1447	150	524		108	40	402		82	22
13	2054	12,100	878	132	657	3,454	413	23	624	1,275	74	20
Intake		20,483	9173	1411		8,024	3843	496		3,547	1270	376
Less Sales & Deaths		10,584				4,339				1,646		
Closing Numbers		9,899				3,685				1,901		

TABLE 11. AVERAGE PRICES REALISED FOR LAYERS CULLED & EGGS

Period	Battery		Deep Litter		Free Range	
	Culled Layers	Eggs	Culled Layers	Eggs	Culled Layers	Eggs
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1.	10. 1.	5. 1.	7. 5.	5. 0.	6.10.	4.11.
2.	10. 6.	5. 2.	8. 0.	5. 2.	8. 3.	5. 1.
3.	9. 0.	5. 1.	8. 0.	5. 1.	8. 0.	5. 0.
4.	9. 1.	4. 8.	6. 3.	4. 8.	8. 7.	4.10.
5.	9. 5.	4. 1.	9.11.	4. 3.	9.11.	4. 0.
6.	9.11.	3. 9.	7. 9.	3.11.	9.10.	3. 8.
7.	8.11.	3. 6.	9. 5.	3. 7.	7.11.	3. 6.
8.	8. 5.	3. 6.	8. 2.	3. 6.	6. 9.	3. 6.
9.	9. 3.	3. 6.	8.10.	3. 5.	8. 2.	3. 6.
10.	8. 3.	3. 9.	8. 5.	3. 8.	7. 6.	3.10.
11.	8.11.	4. 2.	8. 7.	4. 1.	7. 7.	4. 3.
12.	9. 0.	4. 8.	12. 6.	4. 7.	7. 4.	4. 9.
13.	8. 8.	5. 0.	8. 8.	4.10.	7.10.	5. 0.
Average Selling Price	9. 0.	4. 4.	8. 6.	4. 4.	8. 0.	4. 2.

TABLE 12. AVERAGE FOOD CONSUMPTION PER LAYER PER DAY

Type of Feed	Battery		Deep Litter		Free Range	
	Ounces	%	Ounces	%	Ounces	%
Meal & Pellets	4.96	87	3.44	65	2.60	49
Grain: Home-grown	.39	7	1.13	21	2.21	42
Purchased	.10	2	.44	8	.15	3
Grit	.25	4	.20	4	.25	5
Other Feeds	-	-	.10	2	.05	1
Total feeds per day	5.70	100	5.31	100	5.26	100

TABLE 13. AVERAGE RELATIONSHIPS BETWEEN FOOD COSTS :
EGG PRODUCTION RATES : AND EGG SALES

	Battery	Deep Litter	Free Range
Av. Cost per cwt. Pellets	36/-	36/5	37/6
" " " " Grain:			
Home-grown*	25/-	25/-	25/-
Purchased	27/4	27/8	31/4
" " " " Grit	11/3	12/3	12/7
" " " " Other Feeds	-	21/-	24/-
" " " " Total Feeds	34/-	32/-	31/-
Total Feeds per Bird per Annum	130 lbs.	121 lbs.	120 lbs.
Total Feed Cost per Bird	£1.19.7.	£1.14.8.	£1.13.0.
Eggs produced per cwt. Total Feeds	179	162	162
Av. price per doz. eggs sold	4/4d.	4/4½d.	4/2½d.
Eggs Sales revenue per cwt. feed	64/6d	58/9d.	56/5d.
Egg Feed Margin per cwt. feed	30/6d.	26/9d.	25/5d.
Output per £100 Total Feeds	£214.6.0.	£201.2.0.	£200.5.0.
Winter production as % of annual production +	48.2%	52%	37%
Average number of eggs produced per bird per year	206	175	173
Number of eggs needed to buy 1 cwt. feed	94	88	89
Eggs needed to cover feed costs per bird	110	96	95

* Charged uniformly at this price.

+ Winter = first six 28-day periods.

TABLE 14. LABOUR COST RELATIONS

	Battery	Deep Litter	Free Range
Total Labour Costs per Layer	7/-	4/10	8/5
Labour as % Total Costs	11.8	9.7	17.4
Hours per Layer per Annum	3.0	2.0	3.4
No. of birds to give egg sales = wage £6.10. per week at average production rate	90	107	112
Output per £100 labour (including appreciation)	£1219	£1443	£785
No. birds looked after by worker on 47 hour week	809	1222	727
Average flock size	482	223	176

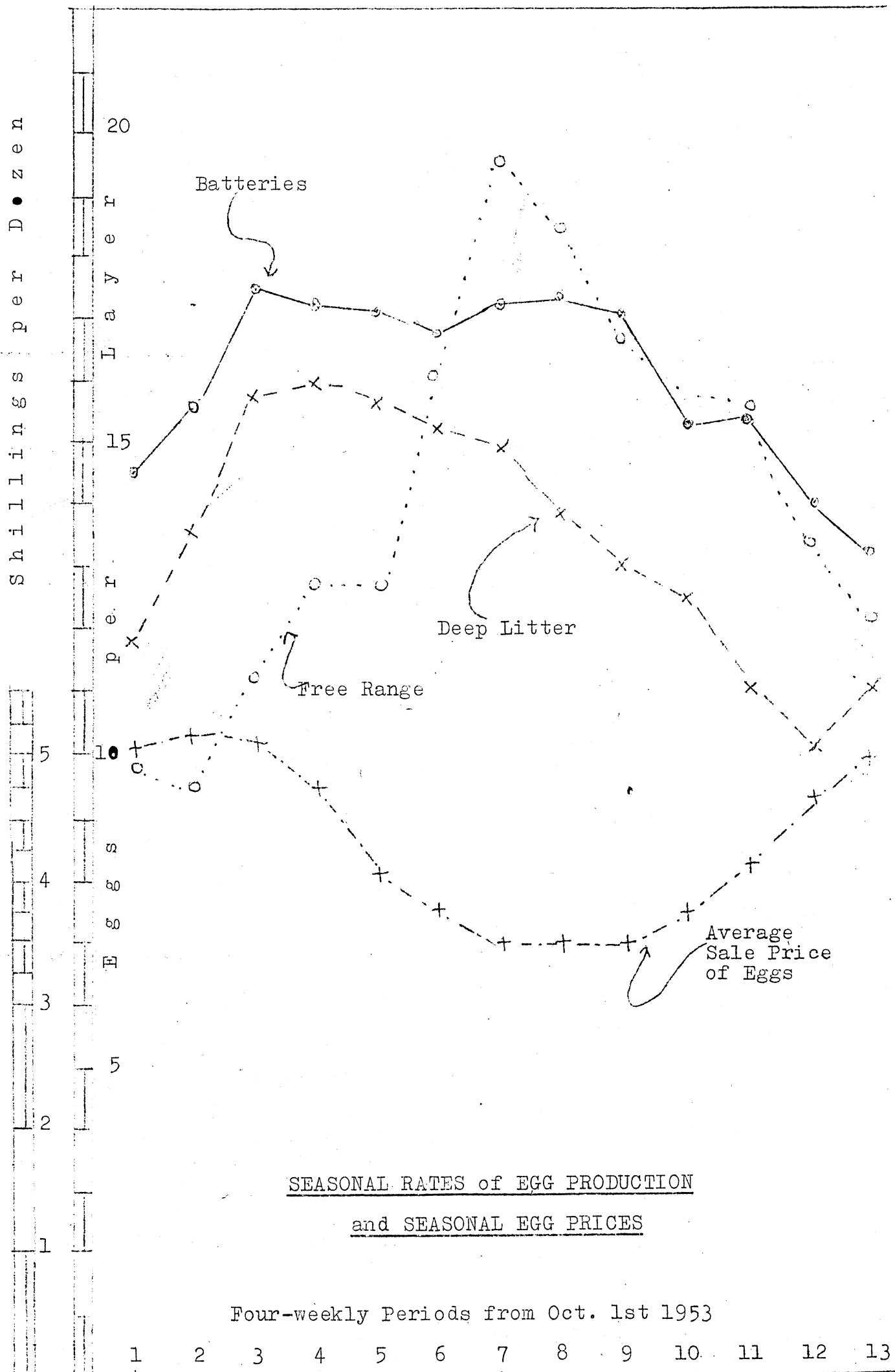
TABLE 15. AVERAGE COSTS and RETURNS PER DOZEN EGGS

	Battery			Deep Litter			Free Range		
Total Eggs	1729 doz.			1457 doz.			1441 doz.		
Average price received	4/4d.			4/4 $\frac{1}{4}$ d.			4/2 $\frac{1}{4}$ d.		
	s.	d.	%	s.	d.	%	s.	d.	%
Total Feeds	2.	3 $\frac{1}{2}$.	67	2.	4 $\frac{1}{2}$ d.	71	2.	3 $\frac{1}{2}$ d.	68
Total Labour	5.	12		4.	10		7.	17	
Total General	2 $\frac{1}{2}$.	6		1.	2		1 $\frac{1}{4}$.	3	
Net Flock Depreciation	6 $\frac{1}{2}$.	15		7.	17		4 $\frac{3}{4}$.	12	
Cost per dozen	3.	5 $\frac{1}{2}$.	100	3.	4 $\frac{1}{2}$	100	3.	4 $\frac{1}{2}$.	100
Margin per dozen	10 $\frac{1}{2}$.			1. 0 $\frac{1}{4}$.			9 $\frac{3}{4}$ d.		

TABLE 16. DISTRIBUTION OF ANNUAL EGG YIELDS PER LAYER

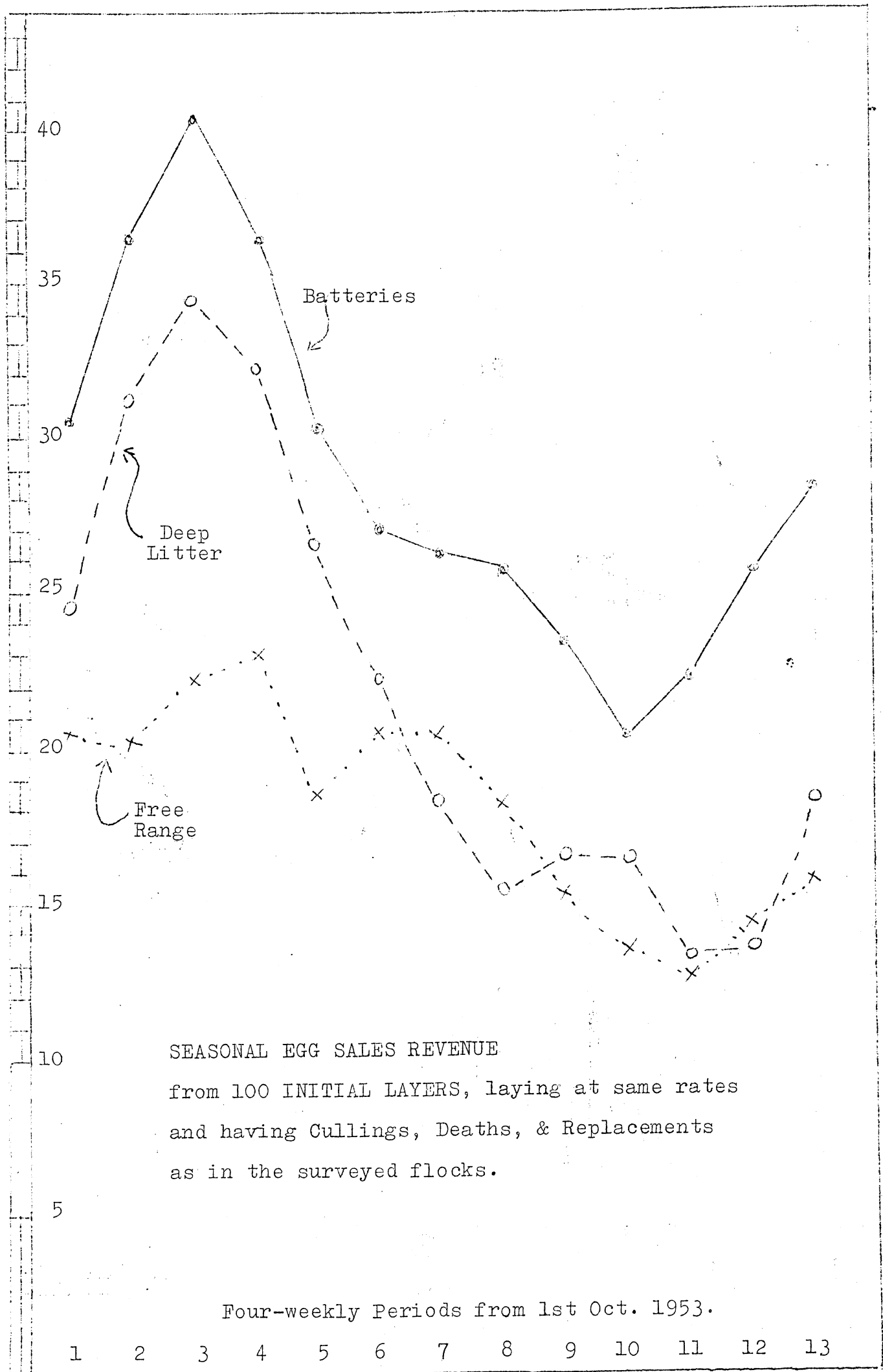
	Battery		Deep Litter		Free Range	
Below 140 eggs	1		-		-	
140 and under 150	-		1		1	
150 " " 160	-		2		1	
160 " " 170	-		1		-	
170 " " 180	2		2		1	
180 " " 190	1		5		3	
190 " " 200	3		2		3	
200 " " 210	1		-		-	
210 " " 220	2		-		-	
220 " " 230	4		1		-	
230 " " 240	1		-		-	
240 " " 250	1		-		-	
250 " " 260	1		-		-	
No. of flocks	17		14		9	
Average No. of eggs per bird	206		175		173	

GRAPH I



£

GRAPH 2.



A P P E N D I X I -----

PULLET REARING COSTS

From ten of the co-operators in the main investigation, figures relating to pullet rearing were obtained. The following is the average cost of rearing day old pullets to point of lay, on a "per bird reared" basis.

		s. d.	s. d.
Cost of Stock ...	...	3.10.	3.10.
<u>Feeds:</u>			
Meals & Pellets	13 lbs.	4. 6.	
Grain	9 "	2. 0.	
Grit	1 "	1. 6. 7.	
Labour, .8 hours	...		1. 6.
Fuel	... ..		1.
Miscellaneous	... ..		1.
Depreciation	... ..		<u>3.</u>
TOTAL COST	... ..		12. 4.
Less Credit for cocks &c.			<u>1.</u>
Net Cost per Pullet ...			<u>12. 3.</u>

The total number of birds reared was 4134 and the range in rearing costs per pullet was:-

	S h i l l i n g s							
	9	10	11	12	13	14	15	
and under	10	11	12	13	14	15	16	
No. of farmers whose cost per pullet was within the stated limits	-	2	2	2	2	2	-	

Average weight of foods consumed per pullet reared was:-

Meals & Pellets	13 lbs.
Grain	9 lbs.
Grit	1 lb.

Home-grown grain has been charged at 25/- per cwt.

Family labour has been charged at 2/6d. per hour.

Plant Depreciation is charged at £1. per initial 100 pullets

Cockerels on hand are credited at 10/-.

A P P E N D I X I I .. ---

COST OF TURKEY REARING

One co-operator provided turkey rearing costs.
160 day-old poults were purchased at 8/- per head. 129 were reared and sold, the average weight being 14.8 lbs.

						£. s. d.
Cost of Stock.	160 poults	...	...	...	...	64. 0. 0.
<u>Feeds</u>	Meal & Pellets	67 cwt.	128.19. 6.			
	Grain	29½ "	36.17. 6.			
	Grit	1 "	12. 6.	166. 9. 6.		
<u>Labour</u>	205 hours @ 2/6d...	...	...	25.12. 6.		
<u>Electricity</u>	...	...	...	1. 0. 0.		
<u>Miscellaneous</u>	...	...	...	1. 0. 0.		
<u>Depreciation</u>	...	...	...	31. 0. 0.	225. 2. 0.	
<u>TOTAL COSTS</u>	...	...	...	...	...	289. 2. 0.
129 Turkeys realised	...	...	...	...	...	473. 8. 6.
<u>MARGIN</u>	...	...	...	...	...	£184. 6. 6.

Averaged "per bird sold", these results give the following picture:-

ing picture:-						£. s. d.
Cost of Stock	...	...	...	...	...	10. 0.
<u>Feeds</u>	Meal & Pellets	56 lbs.	1. 0. 0.			
	Grain	26 "	5. 9.			
	Grit	1 "	<u>1.</u>	1. 5.10.		
<u>Labour</u>	1.8 hours	...	...	...	4. 0.	
<u>Electricity</u>	}	...	...	...	5. 0.	
<u>Miscellaneous</u>		...	...	...
<u>Depreciation</u>		...	...	...
					<u>1.14.10.</u>	
TOTAL COSTS	...	...	...	...	...	2. 4.10.
Average Price per bird sold	...	...	...	...	...	<u>3.13. 5.</u>
MARGIN	...	...	...	...	...	£1. 8. 7.

INDIVIDUAL FLOCK ANALYSES

Farm	Average Flock	Gross Output per 100 Layers £	Total Expenses per 100 Layers £	Total Egg Prod'n. per 100 Layers Dozens	Winter Eggs as % Total Prod'n. %	Labour Hrs/100 Layers per Year Weeks	Deaths as % Total Intake %
B A T T E R Y							
<u>Full Year Operators</u>							
C104B	139	517	425	2029	47	265	2.7
C106	140	443	434	1760	57	314	3.4
C403	229	478	327	1897	54	562	3.5
D103	127	415	316	1680	58	286	3.0
D105	640	421	334	1764	55	130	3.7
D108	648	435	400	1693	61	714	4.5
D302A	1002	317	369	1224	15	197	18.5
D302B	486	443	329	1833	54	177	9.3
D304C	140	390	279	1649	40	180	4.9
D403	1012	397	306	1631	55	200	8.0
D404B	433	364	332	1480	56	127	2.4
D408C	221	385	325	1576	48	185	9.4
N101	1034	505	353	1937	51	459	5.3
N102	504	430	463	1464	44	516	3.5
N104	564	438	338	1862	59	254	9.3
N109	197	472	367	1830	61	290	3.1
N211	680	544	399	2069	50	379	6.8
<u>Part Year Operators</u>							
D107	604	429	289	1866	66	137	.4
D408B	224	345	287	1368	58	152	5.6
D408D	107	191	227	619	41	106	5.5
D E E P L I T T E R							
<u>Full Year Operators</u>							
C112	168	336	271	1448	51	217	10.2
C116	192	406	259	1651	62	168	5.0
C127	204	304	259	1328	56	268	6.4
130	102	291	306	1320	57	259	12.6
301A	607	395	352	1351	58	99	1.0
C301B	177	418	354	1390	51	217	2.3
C303	172	321	291	1265	37	212	6.5
C304A	175	337	266	1500	54	208	15.0
C313	285	310	229	1178	40	128	6.5
C401	144	368	301	1448	54	95	8.5
C404A	346	377	319	1552	59	207	11.5
N203	152	438	348	1775	60	359	9.0
N204	215	353	261	1528	57	228	9.3
N206	176	417	279	1650	68	133	4.0
<u>Part Year Operators</u>							
C401A	156	189	202	624	85	131	8.3
D201	25	192	280	860	34	1148	13.7
D204	171	214	164	770	87	157	5.1
D304B	245	326	234	1300	65	107	6.5
D402	436	346	272	1428	66	91	8.8
D404C	157	328	282	1356	61	233	12.7
D408A	231	275	264	1033	64	135	7.2

INDIVIDUAL FLOCK ANALYSES (Cont'd)

Farm	Average Flock	Gross Output per 100 Layers £	Total Expenses per 100 Layers £	Total Egg Prod'n. per 100 Layers Dozens	Winter Eggs as % Total Prod'n. %	Labour Hrs/100 Layers per Year Weeks	Deaths as % Total Intake %
F R E E R A N G E							
<u>Full Year Operators</u>							
C105A	52	325	229	1473	34	350	14.7
C105B	85	273	316	1164	49	428	37.5
C108	205	403	300	1491	38	266	5.9
C109	169	415	353	1595	41	323	6.8
C113	100	313	314	1455	36	546	7.2
C114	282	390	252	1664	45	452	7.2
C117	231	229	243	1063	52	182	15.8
C118	269	382	256	1537	46	271	5.6
C401B	187	322	243	1526	50	209	22.3
<u>Part Year Operators</u>							
C104A	112	367	310	1334	72	218	5.2
C115	187	271	243	986	97	247	7.6

