FINANCIAL RESULTS ON SIXTY-ONE WEST CORK FARMS IN 1940-'41.

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In this paper a summary is given of the financial results achieved on 61 farms in a West Cork creamery district (about nine miles west of Clonakilty), during the year ended 30th April, 1941. In presenting the summary, tables have been extensively employed, so as to facilitate the examination and interpretation of the data available; and comment has been restricted to what appeared to be the minimum necessary to the clarification of the tables.

The essential information was collected by the " survey " method, which necessitated a personal visit to each farm included in the inquiry, for the purpose of ascertaining the relevant data. The farmers concerned were not required to keep detailed accounts specially for the purpose of the investigation. As in the case of previous " surveys ", however, the detailed records concerning the quantities and value of milk and eggs sold, and farming requisites bought by these farmers, were freely made available to me by the management of the local creamery.

The scope of the inquiry was limited to farms between 10 and 50 statute acres, and was confined to a district roughly three miles by one and a half miles. The distribution, according to size, of the farms whose financial records are included in this paper, is shown in Table I. These 61 farms contributed 50 per cent. of the total milk supply of the local creamery during the year under review.

TABLE I.—DISTRIBUTION OF FARMS ACCORDING TO SIZE

Size of Farm	Number of Farms	Total Area	Average Area per Farm
(Statute Acres)	(No.)	(Acres)	(Acres)
10–20	14	216	15
20–30	22	525	24
30–40	14	484	35
40–50	11	510	46
Total	61	1,735	28

For convenience, the paper is divided into six sections, dealing respectively with :

1. The value of the total output, and its division as between

   (a) the ordinary farm operating expenses, and

   (b) the remuneration of the labour employed (hired and family).

2. The size and composition of the " potential " and of the actual labour force on the farms.

3. The remuneration of the workers (hired and family).

4. The relative importance of the different categories of operating costs.

5. Some of the physical factors of production which, through the then existing price structure, produced the financial results outlined in the previous sections.

6. A brief comparison of the farms with the highest and lowest " labour incomes " in each of the size groups specified in Table I.

The basis on which the necessary valuations of opening and closing inventories of live stock, farm produce consumed in the farmers' homes, depreciation of implements, family labour, etc., were made, is briefly set out in an appendix.

During the year under review, two factors, entirely unconnected with the war, adversely affected the operations, and consequently the financial results on these farms : (1) the drought in the summer of 1940, which affected the output of milk; and (2) the restrictions on the movement, and consequently on the sale, of cattle in this area, made necessary by the existence of foot-and-mouth disease in other parts of the country.

Although I am only concerned with the presentation of the results *actually* achieved, still, I have thought it desirable to hazard an estimate of the decrease in income which resulted from the above-mentioned factors. I have based this estimate on the assumptions (*a*) that the total decline in the quantity of milk sold to the creamery from these farms in 1940-'41, as compared with that sold in 1939-'40, was wholly attributable to the drought of 1940, and (*b*) that the farmers' estimates of the decline in cattle prices, resulting from the outbreak of foot-and-mouth disease, are reasonably correct. This estimate is given in the appendix. It should, however, be borne in mind that, unless otherwise stated, all the tables in the body of the paper give the results *actually* achieved.

1. Total Output.

Table II shows (*a*) the value of the different items which made up the total output, and (*b*) the value of that portion of the total output which was consumed in the farmers' homes.

In this paper, output refers only to that portion of the total farm production which was available for disposal, either in the form of sales off the farm or of consumption in the farmers' homes. It does not take into account farm products which were used on the farms for further production. The value of the butter consumed in farmers' homes is also omitted, as this product was bought and paid for in the usual way at the creamery. The term " sales " represents, in the case of live stock, nett sales (i.e., after deduction of the cost of purchases), and includes the usual adjustments for the value of inventories at the beginning and the end of the accounting period. Home-bred heifers transferred into the dairy herd during the year have been credited to the " other cattle " account, just as if they had been sold off the farm, and have been debited to the " cows " account, in the same manner as ordinary purchases from sources outside the farm. This arrangement ensures reasonable uniformity in the method

of treating the cost of " herd replacement " on all farms, whether the essential replacements were made with home-bred heifers or with purchased cows.

TABLE II —(a) VALUE OF TOTAL OUTPUT

(b) VALUE OF PRODUCE CONSUMED IN FARMERS' HOME

Products	Value of Total Output		Value of Produce Consumed in Farmers' Homes		
	Value	As Percentage of Total Output	Value	As Percentage of Item in Second Column	As Percentage of Total Output
	£	%	£	%	%
Milk (New)	3,299·15	21·4	508·55	15·4	3·3
Milk (Skim)	36·55	0·2	36·55	100·0	0·2
Calves	1,343·90	8·7	—	—	—
Cattle	318·15	2·1	—	—	—
Sheep, Wool	148·45	0·9	—	—	—
Horses	184·20	1·2	—	—	—
Pigs	3,130·75	20·3	257·00	·8·2	1·7
Poultry, Eggs	3,661·80	23·7	731·55	20·0	4·7
Crops	3,003·80	19·5	1,981·00	65·9	12·8
Sundries	310·45	2·0	107·90	34·8	0·7
TOTAL	15,437·20	100	3,622·55	23·4	23·4

This table gives a general picture of the type of farming which came under review. The dairy herd contributed directly, in the form of milk, calves and cattle, about one-third of the total value of the output; poultry production almost one-fourth; and pig and crop production about one-fifth each. If pig and poultry production are looked on as indirect by-products of milk production, it would be roughly true to say that four-fifths of the total output was pivoted on the dairy herd.

In securing this output, materials to the value of £4,409 had to be purchased to supplement what was produced within the farms themselves. (Foods, £3,727; manures, £297; and seeds, £385.) The cost of these materials, which ranged from £41 per farm on the farms under 20 acres, to £130 per farm on those between 40 and 50 acres, averaged approximately 29 per cent. of the total value of the output. (As will be seen from a later table, more than one-fifth of the total area of these farms was under tillage.) In the last quarter of the year under review, concentrates and manures became comparatively scarce and dear.

The value of the farm produce consumed in the farmers' homes represented 23 per cent. of the value of the total output. Alternatively, the system of agriculture prevailing on these farms might be described as " commercialised " to the extent of about 77 per cent.

Fifteen per cent. of the value of the total output of milk was consumed as liquid milk in the farm households. The average consumption of milk per household was 315 gallons per annum. If the hired workers are included in the farm households at the equivalent of 14

persons for a full year, the consumption of milk averaged about 63 gallons per head per annum.

The value of the pigs consumed in the farmers' homes was 8 per cent. of the total value of the output of pigs. On slightly more than half the farms investigated, pigs were not killed for domestic consumption.

The value of the poultry products consumed in the farmers' homes represented 20 per cent. of the total value of the output of poultry products, and averaged about £12 per farm per annum.

Two-thirds of the total value of the output of crops and vegetables was used in the farmers' homes. Wheat was grown on all the farms surveyed, and, in all cases, portion of the crop was milled locally for domestic use. Wheat, valued at the retail price of its flour equivalent, accounted for more than half the value of the total domestic consumption of crops and vegetables.

On the farms under 40 acres, the value of the total domestic consumption of all classes of farm products, in relation to the value of the total output, was very uniform at about 25 per cent. In the case of the farms over 40 acres, however, the comparable figure was 19 per cent.

The general analysis of the output given in Table II is carried further in Table III, which shows, for the different size groups, the value of the output of the different products as a percentage of the value of the total output.

TABLE III.—OUTPUT OF DIFFERENT PRODUCTS AS PERCENTAGE OF TOTAL OUTPUT, BY SIZE OF FARM.

Products	All Farms	10–20 Acres	20–30 Acres	30–40 Acres	40–50 Acres
	%	%	%	%	%
Milk (New)	21·4	20·6	22·4	23·8	18·8
Milk (Skim)	0·2	0·4	0·2	0·2	0·1
Calves	8·7	8·2	8·4	8·9	9·2
Cattle	2·1	0·7	1·6	3·6	2·2
Sheep and Wool	0·9	0·1	0·4	0·8	2·2
Horses	1·2	0·9	1·3	0·8	1·5
Pigs	20·3	12·8	22·3	23·3	19·7
Poultry and Eggs	23·7	32·1	23·1	16·1	25·8
Crops	19·5	18·7	19·8	20·0	19·1
Sundries	2·0	5·5	0·5	2·5	1·4
TOTAL	100	100	100	100	100
Consumed in Farmers' Homes as Percentage of Total Output	23·4	26·0	25·1	24·7	19·3

The contents of this table might be generalised as follows:—

1. Changes in size of farm did not result in any very marked changes in the general pattern of farming followed.

2. The value of the output of crops, in relation to the value of the total output, was very uniform in all the size-groups.

3. As might be expected, the practice on the smaller farms, particularly on those under 20 acres, of disposing of each season's calves before the next season's output began to make demands on

the limited area of land available, is reflected in the upward tendency of the ratio of the output of cattle to total output, according as farm size increased. Further light is thrown on this point by a later table, which shows that, on the farms over 20 acres, the cows that were drafted out of the herds were replaced by home-bred heifers to a much greater extent than on the farms under 20 acres.

4. Until the 40-acre size was reached, sheep did not become noticeable competitors of cattle in general.

5. The relative level of output of pigs was about the same on the different size groups over 20 acres; on the farms under 20 acres, however, the relative importance of pig production decreased. This decrease was counter-balanced by an increase in the relative degree of emphasis placed on the output of poultry products. On the farms between 30 and 40 acres, there was a noticeable decline in the relative importance of poultry production.

Table IV shows (a) the proportion of the value of the total output which was absorbed in the payment of the ordinary operating costs, and (b) the proportion which was available for remunerating the workers (hired and family). In the rest of the paper this latter item will be termed " total labour income ", and that portion of the " total labour income " which remained after the hired workers had been paid will be referred to as " total family-labour income ".

TABLE IV.—PROPORTION OF TOTAL OUTPUT AVAILABLE AS " TOTAL LABOUR-INCOME "

Size of Farm	TOTAL OUTPUT			Expenses excluding cost of All Labour	" Total Labour-Income "	"Total Labour-Income as percentage of Total Output
	Sales	Consumed in Farmers' Homes	Total			
Acres	£	£	£	£	£	%
10–20	1,788·60	628·00	2,416·60	1,047·15	1,369·45	57
20–30	3,830·55	1,285·45	5,116·00	2,540·10	2,575·90	50
30–40	2,556·25	839·15	3,395·40	1,608·40	1,787·00	53
40–50	3,639,25	869·95	4,509·20	2,259·20	2,250·00	50
ALL FARMS	11,814·65	3,622·55	15,437·20	7,454·85	7,982·35	52

The " total labour income " was very uniform at 50 to 53 per cent. of the value of the total output, except in the case of the farms under 20 acres, where it increased to 57 per cent.

A further analysis of the value of the total output is given in Table V, which shows, per acre of crops and pasture, (a) the value of the total output, the expenses other than labour costs, and the "total labour income "; (b) the value of the nett output, i.e., the value of the total output minus the cost of foods, manures and seeds bought in, and (c) the value of the produce sold off the farms.

TABLE V —OUTPUT, OPERATING COSTS, "TOTAL LABOUR-INCOME"
AND SALES PER ACRE (CROPS AND PASTURE)

Size of Farm	Total Output per Acre	Expenses excluding Labour Costs per Acre	"Total Labour-Income" per Acre	"Nett" Output per Acre	Sales per Acre
Acres	£	£	£	£	£
10–20	11·88	5·15	6·73	9·09	8·79
20–30	10·11	5·02	5·09	7·08	7·57
30–40	7·15	3·39	3·76	5·29	5·38
40–50	8·96	4·49	4·47	6·13	7·24
ALL FARMS	9·15	4·42	4·73	6·54	7·00

Table VI amplifies previous tables by showing the division of the value of the total output as between (1) those products—e.g., crops, cattle, milk—which made direct demands on the area of land available to each farmer, and (2) those products which required land only indirectly—e.g., pigs and poultry. For convenience, the former are termed "land products" and the latter "farmyard products". The value per farm of that portion of the total output which was used in the farmers' homes is also given in this table.

TABLE VI —(1) OUTPUT OF "LAND-PRODUCTS" AND "FARM-YARD"
PRODUCTS. (2) TOTAL OUTPUT PER FARM (3) PRODUCE CONSUMED
IN FARMERS' HOMES PER FARM

Size of Farm	Output of "Land-Products"		Output of "Farm-Yard" Products per Farm	Total Output per Farm	Produce Consumed in Farmers' Homes per Farm
	per Acre Crops and Pasture	per Farm			
Acres	£	£	£	£	£
10–20	5·90	86	87	173	45
20–30	5·47	126	107	233	58
30–40	4·15	141	102	243	60
40–50	4·76	217	193	410	79
ALL FARMS	4·94	137	116	253	59

2. LABOUR.

Before proceeding to show how the "total labour income" was divided between the hired workers and the family workers, it is desirable to give a picture of the general position in regard to the family labour on these farms by showing:

(a) the number of persons, other than hired workers, who lived on these farms during the accounting period;

(b) the extent and nature of the labour contributed by the family workers; and

(c) the number of hired workers employed.

Table VII shows the number of persons, other than hired workers,

who lived on these farms during the year in question. Children engaged in non-agricultural occupations, but who lived at home, and children employed by other farmers, are not included. Children who were at boarding schools or at day schools are also omitted, although, for probably three or four months of the year, they lived on the farm and might have constituted part of the available labour force.

In rural districts, children usually leave the National Schools when they are about 14 years of age. Also, at about that age, children begin to be able to contribute to the ordinary farm work, particularly to the less laborious types of work, e.g., caring for calves, pigs and poultry, carting milk to the creamery, light harvest work, etc. Consequently, the persons living on these farms have been classified according as they were under or over 14 years, and according as they were males or females. This classification helps to give a reasonably comprehensive picture of the reservoir of family labour available on these farms.

TABLE VII.—NUMBER IN HOUSEHOLDS, EXCLUDING HIRED WORKERS

SIZE OF FARM	MALES		FEMALES		TOTAL PERSONS			TOTAL NUMBER OF PERSONS	
	Over 14	Under 14	Over 14	Under 14	Over 14	Under 14	All Ages	Per Farm	Per 100 Acres Crops and Pasture
Acres	No.	No.	No.	No.	No.	No.	No.	No.	No.
10-20	26	2	21	11	47	13	60	4·3	27
20-30	42	11	29	13	71	24	95	4.3	19
30-40	26	8	23	12	49	20	69	4.9	15
40-50	19	5	17	13	36	18	54	4.9	11
ALL FARMS	·113	26	90	49	203	75	278	4·6	16

The average number of family members per 100 acres (crops and pasture) ranged from 27 on the farms under 20 acres to 11 on the farms between 40 and 50 acres, with an average of 16 for all the farms. The average size of the households, however, was comparatively uniform in all size groups at between four to five persons per household.

Of the 203 persons over 14 years of age, 11 were too old to be able to make effective contributions to the general farmwork. There remained, therefore, 192 persons—109 males and 83 females—who were available for work on these farms. This represented an average of 3·1 " potential " workers per household, as compared with an average of 4·6 members per household.

The extent to which these " potential " workers did, in fact, participate in the operation of these farms is measured in terms of " units " of labour, in Table VIII. In this and subsequent tables, a " unit " of labour represents the equivalent of an adult worker fully engaged for 12 months, e.g., a casual worker employed for four weeks is, for the purpose of this paper, equated to one-thirteenth of a " unit ". The table also shows the extent to which hired labour was used.

TABLE VIII.—TOTAL UNITS OF HIRED AND FAMILY LABOUR, BY SIZE OF FARM

SIZE OF FARM	FAMILY LABOUR		HIRED LABOUR		TOTAL LABOUR		Family Labour as Percentage of Total Labour	Male Labour as Percentage of Total Labour
	Male	Total	Male	Total	Male	Total		
(Acres)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	%	%
10–20	19·87	23·96	0·48	0·48	20·35	24·44	98	83
20–30	33·73	40·70	3 37	3 37	37·10	44 07	92	84
30–40	21·29	27·31	3·00	3 00	24·29	30 31	90	80
40–50	15·87	21·41	6 11	6·61	21·98	28·02	76	78
ALL FARMS ..	90·76	113·38	12·96	13·46	103 72	126·84	89	82

As a rough summary of the contents of this table (taken in conjunction with Table VII), it might be said that:

1. Eighty-three per cent. of the male family members, from whom work on the farm might be expected, did contribute to the farmwork.

2. The female members of the families devoted about 25 per cent. of their time to farmwork.

3. Practically 90 per cent. of the total labour employed, was family labour. The proportion decreased from 98 per cent. on the farms under 20 acres, to 76 per cent. on the farms between 40 and 50 acres.

4. In all size groups, the ratio of male to female labour employed was very uniform at about 4 : 1.

A more practical picture of the labour force, especially from the viewpoint of the individual farmer, is given in Table IX, which shows the number of labour units (family and hired) employed (a) per 100 acres of crops and pasture, and (b) per farm.

TABLE IX.—LABOUR UNITS (a) PER 100 ACRES AND (b) PER FARM

SIZE OF FARM	Total Labour Units Per 100 Acres (Crops and Pasture)			Family Labour Units (Per Farm)		Hired Labour Units (Per Farm)		Total Labour Units (Per Farm)			Hired Male Labour as Percentage of Total Hired Labour
	Family	Hired	Total	Male	Female	Male	Female	Family	Hired	Total	%
(Acres)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	(Units)	%
10–20	10 82	0·22	11·04	1·42	0·29	0·03	—	1·71	0·03	1·74	100
·20–30	8·04	0 66	8 70	1·53	0·32	0·15	—	1·85	0·15	2 00	100
30–40	5·75	0·63	6·38	1·52	0·43	0·21	—	1·95	0·21	2·16	100
40–50	4·26	1·31	5 57	1·44	0·50	0·56	0·05	1·94	0·61	2·55	92
All Farms	6·65	0·79	7·44	1·49	0·37	0·21	0·01	1·86	0·22	2·08	96

The number of labour units employed per 100 acres averaged almost seven and a half—decreasing from about 11 on the farms under 20

acres, to slightly more than five and a half on the farms between 40 and 50 acres. On the other hand, owing to the fact that size of farm and scale of output are not the determinants of the quality of family labour used on a farm, there existed in all size groups comparative uniformity as regards the number of family labour units per farm. Such increases in the labour force per farm as were demanded by size of farm, and scale of output, were almost entirely contributed by hired labour. Hired labour, however, did not begin to become significant until the 40-acre mark was reached. Practically all the hired labour was male labour.

Before passing on to an examination of the size and distribution of the " total labour income ", it may be desirable to connect the previous tables concerning value of output with these tables relating to the labour force employed. The necessary link is provided in Table X, which shows the total output, the nett output, the output of " land products " and the output of " farmyard products " per unit of labour.

TABLE X—VALUE OF OUTPUT PER "LABOUR-UNIT."

Size of Farm	Gross Output	Nett Output	Output of " Land-Products "	Output of " Farm-Yard " Products
(Acres)	£	£	£	£
10–20	99	76	49	50
20–30	116	81	63	53
30–40	112	83	65	47
40–50	161	110	85	76
ALL FARMS	122	87	66	56

3. REMUNERATION OF LABOUR.

Table XI indicates how the " total labour income " was divided as between the hired and the family workers. The information is given (a) in relation to the farm as a business unit, so as to show the position as it might be viewed by the individual farmer, and (b) in relation to each unit of labour employed, so as to give the picture from the viewpoint of the community as a whole. (Unless otherwise stated, all calculations concerning the remuneration of labour take into account the value of the farm produce used in the farmers' homes, at prices as nearly as possible equivalent to what the produce would have fetched if it had been sold off the farm.)

TABLE XI.—TOTAL "LABOUR-INCOME" (a) PER FARM, (b) PER UNIT OF LABOUR

Size of Farm	Total " Labour-Income " per farm	Cost of Hired Labour per Farm	Total " Family Labour-Income " per Farm	Total " Labour-Income " per Unit of Labour	Cost of Hired Labour (Male and Female) per Unit	Total " Family Labour-Income " per Family Labour-Unit	Total Labour- Income if value of Produce Consumed in Farmers' Homes were Excluded	
							Per Farm	Per Unit of Labour
(Acres)	£	£	£	£	£	£	£	£
10–20	97·82	2·61	95·21	56·03	76·04	55·63	52·96	30·34
20–30	117·09	12·18	104·91	58·45	79·51	56·71	58·66	29·28
30–40	127·64	13·50	114·14	58·96	62·98	58·52	67·78	31·39
40–50	204·55	41·61	162·94	80·30	69·24	83·71	125 46	49 25
ALL FARMS	130·86	15·59	115·27	62·93	70·66	62·01	71·49	34·38

A broad summary of this table might be made as follows :—

1. The " total labour income " per farm ranged from about 38/- per week on the farms between 10 and 20 acres to 79/- per week on the farms between 40 and 50 acres. The average for all the farms was about 50/6 per week.

2. The " total labour income " in cash, varied from about 20/6 per week on the farms between 10 and 20 acres, to 48/6 per week on the farms between 40 and 50 acres. The general average was approximately 27/6 per week, per farm.

3. The cost of the hired labour per farm was not significant, until the 40-acre size was reached; and even then the proportion of the " total labour income " which was paid to the hired workers, was only about 20 per cent. Such problems, therefore, as might have existed on these farms, in regard to the size of the " family-labour income ", were not due to the influence of the size, or the cost of the hired labour force.

4. If no distinction were made between hired and family labour, the wage which each unit of labour could have received, would have varied from about 21/6 per week, on the farms between 10 and 20 acres, to 31/- per week, on the farms between 40 and 50 acres, with an average for all farms of about 24/- per week.

5. When the hired labour had been paid, the balance of the " total labour income " was sufficient to enable each family labour unit to receive a wage ranging from 21/6 per week, on the farms between 10 and 20 acres, to 32/- per week, on the farms between 40 and 50 acres, or an average for all farms of approximately 24/- per week.

6. Table IX showed that according as size of farm increased, the size of the labour force per farm also increased. Table XI shows that the weekly wage per unit of labour increased according as size of farm increased, and that it was only on the farms between 40 and 50 acres, that the average weekly wage that could have been paid to the family workers, equalled the weekly wage that was actually paid to the hired workers.

Assuming that the estimated reduction in the total value of the output, which resulted from the drought and the foot-and-mouth disease, represented a net decrease of the same amount, in the " labour income " of the family workers, these two factors combined were responsible for the following reductions in (a) the " total labour income " per farm, and (b) the " labour income " per unit of family labour.

Size of Farm	Reduction in " Total Labour-Income " per Farm	Reduction in " Labour-Income " per Unit of Family Labour
(Acres)	Shillings per week	Shillings per week
10-20	3·7	2·2
20-30	4·7	2·6
30-40	9·9	5·7
40-50	12·4	6·4
All Farms	7·1	4·0

Table XII carries the analysis of the position in regard to the remuneration of the family workers a step further, by showing the size of the weekly family- or household-incomes, according to size of farm.

TABLE XII —DISTRIBUTION OF FAMILY INCOMES BY SIZE OF FARM

Range of Family Incomes	Farms Under 20 Acres	Farms 20–30 Acres	Farms 30–40 Acres	Farms 40–50 Acres	All Farms
(Shillings per Week)	(No)	(No)	(No)	(No)	(No)
Under 30	5	7	4	1	17
30–40	5	7	1	3	16
40–50	2	1	2	1	6
50–60	1	1	2	—	4
60–70	—	4	4	—	8
70–80	—	1	—	1	2
80–90	—	—	1	2	3
90–100	1	1	—	2	4
Over 100	—	—	—	1	1
	14	22	14	11	61

This table indicates that :—

(a) on slightly more than half the farms under review, the total household income per farm averaged less than 40/- per week;

(b) on slightly less than one-third of the farms, the total household income per farm averaged between 40/- and 70/- per week;

(c) on the remaining one-sixth of the farms, the total household income per farm averaged over 70/- per week.

As a broad statement of the relation between size of household income and size of farm, it might be said that :—

(a) on roughly two-thirds of the farms under 30 acres, and on one-third of the farms over 30 acres, the household incomes were under 40/- per week.

(b) On nine out of every 10 farms under 40 acres, the household incomes averaged less than 70/- per week.

(c) On slightly more than half the farms between 40 and 50 acres the household incomes averaged over 70/- per week.

Table XIII shows another aspect of the position in regard to household incomes, viz., size of average weekly household incomes in relation to (a) size and composition of households, and (b) the number of units of family labour contributing to the earning of the household income.

TABLE XIII.—WEEKLY FAMILY INCOMES IN RELATION TO (a) SIZE OF FAMILY AND (b) UNITS OF FAMILY LABOUR

| Range of Family Incomes | AVERAGE NUMBER OF PERSONS PER FAMILY | | | Average Units of Labour Per Family | Per Cent of Total Area in Each Income-Group | Per Cent. of Total Population in Each Income-Group |
	Over 14 Years	Under 14 Years	Total Persons			
(Shillings Per Week)	(No)	(No)	(No)	(No)	%	%
Under 30	2·8	0·7	3·5	1·63	25	22
30—40	3·4	1·3	4·7	1·65	24	27
40—50	3·5	1·8	5·3	2·20	10	11
50—60	2·8	2·2	5·0	1·73	6	7
60—70	3·8	1·7	5·5	1·97	13	16
70—80	3·0	0·5	3·5	1·87	4	3
80—90	4·0	0·3	4·3	2·76	8	5
90—100	4·0	1·8	5·8	2·09	8	8
Over 100	4·0	—	4·0	3·06	2	1
All Farms	3·4	1·2	4·6	1·86	100	100

This table shows, *inter alia,* that :—

1. On approximately half the area surveyed, the family incomes averaged less than 40/- per week per family.

2. On slightly less than one-third of the area investigated, the family incomes lay between 40/- and 70/- per week per family.

3. On slightly more than one-fifth of the area concerned, the family incomes were over 70/- per week per family.

4. One-half of the persons concerned (excluding hired workers), were grouped in families, whose income per family averaged less than 40/- per week.

5. One-third of the persons concerned were members of families, whose income per family was between 40/- and 70/- per week.

6. Slightly less than one-fifth of the persons in question, were members of families with an average income per family, of more than 70/- per week.

In the case of ordinary non-agricultural business units, the financial results are usually expressed in terms of profit or loss, after all expenses, *including labour costs,* have been met. In attempting to follow the same procedure in the case of a single farm, or of a group of farms, one is faced with the difficulty that much of the labour employed may be family labour, and that, although the minimum rate of wages payable to hired workers in agriculture, has been determined by public authority, no definite standard of remuneration has been agreed upon, even by convention, for family workers.

Accordingly, in Table XIV, which shows the financial results on these farms in terms of profit and loss per farm, the cost of the family labour employed, has been charged at only the same rate as that payable to equivalent hired labour.

TABLE XIV.—FINANCIAL RESULTS ASSUMING FAMILY LABOUR TO HAVE BEEN PAID AT THE SAME RATE AS EQUIVALENT HIRED LABOUR

Size of Farm	Total Labour-Income	Cost of Hired Labour	Cost of Family Labour if Paid at same Rate as Equivalent Hired Labour	Surplus (+) or Deficit (—)	Surplus (+) or Deficit (—) Per Farm
(Acres)	£	£	£	£	£
10–20	1,369·45	36·50	1,759·60	—426·65	—30·48
20–30	2,575·90	267·95	2,988·30	—680·35	—30·93
30–40	1,787·00	188·95	1,963·00	—364·95	—26·07
40–50	2,250·00	457·70	1,513·15	+279·15	+25·38
ALL FARMS	7,982·35	951·10	8,224·05	—1,192·80	—19·55

Were it not for the adverse effects of the drought, and the foot-and-mouth disease, the results might have been as follows :—

£

10–20 acre farms :—average deficit per farm 20·77
20–30 ,, ,, ,, ,, ,, ,, 18·70
30–40 ,, ,, ,, ,, ,, ,, 0·28
40–50 ,, ,, ,, surplus ,, ,, 57·56
ALL FARMS ... ,, deficit ,, ,, 1·19

In the case of eighteen farms, the results actually achieved were sufficiently good, to enable the family workers to receive the same rate of wages as equivalent hired labour, and to leave a surplus. (On six other farms, the results achieved were within £10 of this standard.) The distribution of this surplus by size of farms, is shown in Table XV.

TABLE XV.—DISTRIBUTION OF SURPLUS BY SIZE OF FARM

Amount of Surplus	10–20 Acres	20–30 Acres	30–40 Acres	40–50 Acres	ALL FARMS No.	ALL FARMS Percentage Distribution
(£)	(No)	(No.)	(No.)	(No.)		%
Under 20	1	3	—	1	5	27·80
20–40	—	—	1	—	1	5·55
40–60	2	—	—	—	2	11·10
60–80	—	4	—	1	5	27·80
80–100	—	—	—	1	1	5·55
100–120	—	—	1	2	3	16·65
120–140	—	—	—	1	1	5·55
ALL FARMS	3	7	2	6	18	100·00
Per cent of Farms in e a c h G r o u p Earning Surplus	21	32	14	55	30	

Roughly speaking, on three out of every ten farms, there was a surplus. This average figure was exceeded only in the case of the farms between 40 and 50 acres, where five to six out of every ten farms showed a surplus. This surplus was below £80 per farm, on approximately three-fourths of the farms on which a surplus was earned; and on almost half the farms concerned, it was less than £60 per farm.

On two-fifths of the farms under 30 acres where a surplus arose, it was less than £20 per farm; and on the remaining three-fifths, it was between £40 and £80 per farm. On two-thirds of the farms over 40 acres where a surplus was earned, the amount exceeded £80 per farm.

As already stated, no definite standard of remuneration has been laid down, even by convention, for family workers. Consequently, in the two previous tables, the family workers have been allowed only the same rate of wages as that paid to equivalent hired labour.

It seems to be generally agreed, however, that a minimum standard of wages for family workers should include the following amounts :—

1. A sum equal to that paid to equivalent hired labour.

2. An additional amount to compensate for the greater quantity and the superior quality of the work done by family workers, as compared with hired workers.

3. As far as the owner of the farm is concerned, a further amount as a reward for the managerial and risk-taking functions which he performs, and for his investment of capital in the farm.

I do not propose to offer an opinion here in regard to the amounts which should be allowed under headings 2 and 3. But, for the purpose of furthering a possible calculation of the amount which might be allowed, in the case of these farms, by way of interest on capital, there is shown in Table XVI, the estimated value of (a) livestock, (b) machinery and equipment, (c) farm buildings, excluding dwelling-houses, and (d) land, owned by this group of farmers, as on 1st May, 1940. (The basis on which the different items were valued is given in the Appendix.)

TABLE XVI —VALUE OF LIVE-STOCK AND DEAD-STOCK AS ON 1st MAY, 1940, BY SIZE OF FARM

Live- or Dead-Stock	Size of Farm (Acres)				All Farms	
	10–20	20–30	30–40	40–50	Total	Percentage
Live-Stock	£	£	£	£	£	%
Cows	672	1,548	1,176	1,296	4,692	11·1
Other Cattle	176	458	542	694	1,870	4·4
Sheep	6	23	25	81	135	0·3
Pigs	45	254	181	218	698	1·7
Poultry ...	94	152	84	106	436	1·0
Horses, Asses ...	203	615	521	521	1,860	4·4
Total Live-Stock	1,196	3,050	2,529	2,916	9,691	22·9
Dead-Stock Machinery etc.	411	930	775	858	2,974	7·1
Farm-Buildings	755	1,997	1,865	2,291	6,908	16·4
Land	2,808	6,825	6,292	6,630	22,555	53·6
Total Dead-Stock	3,974	9,752	8 932	9,779	32,437	77·1
Total Live- and Dead-Stock	5,170	12 802	11,461	12,695	42,128	100

The fixed assets, land, buildings, and machinery, accounted for about 77 per cent. of the total value of the assets. Land, at about 54 per cent., was by far the most important item. Livestock (23 per cent.) occupied second place. Buildings amounted to 16 per cent., and machinery and equipment to 7 per cent. The percentage distribution of the assets of all kinds was very uniform in all the size groups, at approximately the figures given in the table.

The value of draught-animals was between 15 and 20 per cent. of the value of all livestock.

Table XVII shows the relation between the value of the different classes of livestock, and the total value of all livestock, excluding draught-animals.

TABLE XVII —VALUE OF DIFFERENT CLASSES OF LIVE-STOCK, AS A PERCENTAGE OF VALUE OF TOTAL LIVE-STOCK, EXCLUDING DRAUGHT-ANIMALS

Size of Farm	Cows	Other Cattle	Sheep	Pigs	Poultry	Horses (Excluding Draught Animals)	Total
(Acres)	%	%	%	%	%	%	%
10–20	66·0	17·3	0·6	4·4	9·2	2·5	100
20–30	63·7	18·8	0·9	10·4	6·2	—	100
30–40	57·4	26·4	1·2	8·8	4·1	2·1	100
40–50	53·1	28·5	3·3	8·9	4·4	1·8	100
ALL FARMS	59·1	23·5	1·7	8·8	5·5	1·4	100

The decline in the relative value of cows on the farms over 30 acres, was offset by an increase in the relative value of other classes of cattle. The relative importance of sheep showed an upward tendency, according as farm-size increased. On the farms over 20 acres, the value of pigs, in relation to the value of the other classes of live-stock, was very uniform at around 9 to 10 per cent. On the farms under 20 acres, however, pigs occupied a relatively low position. The relative value of poultry decreased according as farm-size increased, but reference to Table II shows that for every £1 invested in poultry, the average value of the output obtained was £8·4.

The final link between the previous section dealing with the labour force on the farms, and the present section concerning the remuneration of that labour force, is provided by Table XVIII, which shows, for the different size groups, the number of units of labour to whom these farms were able to give economic employment. In constructing the table, the question of giving family workers a higher rate of wages than hired workers, and of allowing the farm owner a special payment for management, risk-taking, and investment of capital, is ignored; and the words " economic employment " are used to describe merely full-time employment at the statutory wage rate for hired workers. Accordingly, the extent to which these farms provided economic employment for labour, whether hired or family, has been calculated by dividing the " total labour income " by £80, i.e., the statutory wage payable to hired workers in that year, plus the approximate value of the contribution which the farmer who employs labour has to make towards the National Health Insurance Scheme for his employees.

TABLE XVIII.—"EMPLOYMENT CAPACITY" BY SIZE OF FARMS

"Employment Capacity" (Units of Labour)	10–20 Acre Farms	20–30 Acre Farms	30–40 Acre Farms	40–50 Acre Farms	All Farms
(Units)	(No)	(No)	(No)	(No)	(No.)
Under 1·75	13	14	7	3	37
1·75–2·0	—	2	2	1	5
2·0–2·5	—	5	3	1	9
2·5–3·0	—	1	2	1	4
Over 3·0	1	—	—	5	6
	14	22	14	11	61

Table IX showed that the number of units of labour actually employed on these farms ranged from 1·74 per farm on the 10 to 20 acre farms to 2·55 per farm on the farms between 40 and 50 acres.

As a theoretical minimum standard of performance, a farm should be able to provide economic employment for at least two units of labour, i.e., for the farm owner and for the son who is to succeed to the farm. In fact, this figure might reasonably be increased to two and a half units, so as to include the work that must almost invariably be contributed by the farm owner's wife, or to allow for the part-time employment of the daughter destined to marry into another farm.

Table XVIII shows that between 60 and 70 per cent. of these farms were below the standard of performance which might be laid down as a minimum in the light of the average number of units actually engaged per farm; and that from 69 to 84 per cent. did not achieve the theoretically desirable standard mentioned above.

One encouraging feature in the table, however, is the very high standard achieved on one of the farms under 20 acres.

4. TOTAL OPERATING COSTS, INCLUDING THE COST OF LABOUR.

Table XIX shows the relative importance of the different items of operating costs, including the cost of hired and family labour. The cost of family labour has been calculated only at the wage rate applicable to equivalent hired labour.

TABLE XIX.—PERCENTAGE DISTRIBUTION OF ITEMS OF OPERATIN G COSTS, BY SIZE OF FARM.

Items of Expenditure	All Farms	10–20 Acre Farms	20–30 Acre Farms	30–40 Acre Farms	40–50 Acre Farms
	%	%	%	%	%
Rent and Rates	5·0	3·5	4·1	5·8	6·6
Concentrates	21·4	15·1	22·1	19·1	26·9
Hay, Roots, Etc.	1·0	1·5	1·0	0·5	1·0
Herd Replacement	1·6	2·2	1·9	2·0	0·6
Repairs and Depreciation	3·9	3·9	3·4	3·9	4·7
Manures	1·8	1·0	1·4	1·5	3·0
Miscellaneous	10·1	9·6	10·0	10·0	10·6
Total Above Items	44·8	36·8	43·9	42·8	53·4
Hired Labour	5·7	1·3	4·6	5·0	10·8
Family Labour	49·5	61·9	51·5	52·2	35·8
Total Labour	55·2	63·2	56·1	57·2	46·6
TOTAL	100	100	100	100	100

The combined cost of concentrates and labour constituted between 74 and 78 per cent. of the total operating costs.

Labour at 47 to 63 per cent. was the most important single item of cost. On the farms between 10 and 40 acres the cost of family labour alone was between 63 and 53 per cent. of the total costs. On the farms between 40 and 50 acres, the comparable figure was 36 per cent. The cost of hired labour was relatively important only on the farms between 40 and 50 acres.

The quantity of labour, particularly of family labour, employed on a farm is not capable of easy and speedy adjustment to varying economic conditions. Consequently, the element of rigidity, which the cost of labour alone introduced into the operating costs on these farms, was very substantial. Except in the case of concentrates and manures, the other costs also were of an essentially " overhead " nature. Even the costs of concentrates and manures are, from their very nature, rather inelastic, for at least short periods, once the general scheme of farm operation has been determined and set in motion.

In the case of these farms, accordingly, the possibility of effecting direct reductions in the " costs " factor, with a view to an ultimate improvement in the general financial position, appears to have been remote. The approach to the solution of such financial problems as might have existed could more surely have been made through a nett increase in the value of output, with a resultant reduction in the incidence of the operating costs on the " total labour income ".

Table II showed that only one-third of the total value of the output on these farms was derived from milk production and its direct by-products. The next section, however, which deals with some of the physical factors of production, shows that the general programme of " land utilisation " was very largely based on the requirements of the dairy herd. Accordingly, Table XX has been constructed to show the price per gallon of milk, which, at the then existing levels of output, costs, and prices for products other than milk, would have been necessary to enable these farmers to meet all operating costs, to pay the family workers the same rate of wages as the hired workers, and to earn interest on capital at the rate of 4 per cent. per annum.

The calculation has been made by aggregating all the costs, including interest on capital at 4 per cent. per annum, deducting therefrom the value of the output of all products other than milk (i.e., treating them as by-products), and expressing the balance in terms of the quantity of milk produced, excluding the milk fed to calves. In the case of the farms under review, there are obvious qualifications implicit in the general principle underlying the calculation; but, in the absence of detailed costings data, the table does provide a figure to which the price received for milk on these farms (6d. per gallon) may be roughly related.

The figures in column 2 are based on the conditions that actually prevailed during the period; the figures in column 3 have been calculated on the assumption that the drought and the foot-and-mouth disease had not occurred.

TABLE XX —ESTIMATED PRICE REQUIRED FOR MILK, ASSUMING PRODUCTION CONDITIONS AND PRICES OF ALL OTHER PRODUCTS UNCHANGED

(1)	(2)	(3)
SIZE OF FARM	Under the Conditions that actually prevailed	Assuming (a) No drought and (b) No foot-and-mouth disease
Acres	Pence per Gallon	Pence per Gallon
10–20	14·10	11·68
20–30	12·11	10·16
30–40	12·11	8·65
40–50	7·60	5·28
ALL FARMS	11·24	8·64

The allowance by way of interest on capital, included in the above table, would be the equivalent of the following increases in the wages of the family workers, as compared with those payable by statute to the hired workers :—

> 10–20 acre farms — 3·3 shillings per unit per week.
> 20–30　,,　,,　— 4·8　,,　　,,　　,,　　,,　　,,
> 30–40　,,　,,　— 6·5　,,　　,,　　,,　　,,　　,,
> 40–50　,,　,,　— 9·2　,,　　,,　　,,　　,,　　,,
> 　　ALL FARMS　5·8　,,　　,,　　,,　　,,　　,,

5. SOME OF THE PHYSICAL FACTORS OF PRODUCTION.

The " total labour income " was determined by the two factors : (a) total value of output, and (b) operating costs other than the cost of labour. The total value of output, in turn, was a compound of the level of prices and the volume of the physical production. Some of the important factors underlying the volume of physical production are indicated in the following tables :—

Tillage.

Table XXI shows, broadly, how the available area of land was utilised.

TABLE XXI —AREA UNDER CROPS AS PERCENTAGE OF TOTAL ARABLE AREA, ON 1st MAY, 1940.

PRODUCTS	All Farms	10–20 Acres	20–30 Acres	30–40 Acres	40–50 Acres
	%	%	%	%	%
Grain and Pulse Crops	13·5	13·4	13·2	13·3	14·0
Root and Green Crops (Including Vegetables)	8·3	10·9	9·3	7·3	7·2
Flax	0·2	0·5	0·3	—	—
TOTAL AREA TILLED	22·0	24·8	22·8	20·6	21·2
Hay	14·0	15·0	14·0	13·4	14·1
Pasture	64·0	60·2	63·2	66·0	64·7
TOTAL HAY AND PASTURE	78·0	75·2	77·2	79·4	78·8
TOTAL CROPS AND PASTURE	100	100	100	100	100

The principal grain crops were wheat and oats, which, between them, accounted for 61 per cent. of the total area tilled. (Wheat, 26 per cent.; Oats, 35 per cent.). Wheat was grown on all the farms, and oats on all but two farms. Barley-growing was confined to two of the farms surveyed. On one farm a small area was under beans. Flax was produced on two farms, while a third farmer grew the crop on conacre land. On two farms sugar-beet was produced. On slightly more than one-third of the farms, a catch-crop of some kind was sown. On about one-quarter of the farms, limited areas of onions were grown for sale, and, in the case of a few farms, " early " potatoes were produced as a " cash-crop ".

By way of general description, however, it might be said that the tillage policies on these farms, apart from wheat-growing, were framed more in the light of the requirements of the livestock carried than with a view to providing " cash-crops ".

Cattle.

Table XXII shows the number of cattle on the farms on the 1st May, 1940.

TABLE XXII —NUMBER OF CATTLE ON FARMS ON 1ST MAY, 1940.

Size of Farm	Cows	Bulls	Other Cattle		Total Cattle	Cows Per 100 Acres Crops and Pasture	Other Cattle and Bulls per 100 Acres Crops and Pasture	Total Cattle Per 100 Acres Crops and Pasture
			2 yrs.	1 yr.				
(Acres)	(No.)	(No.)	(No)	(No)	(No)	(No.)	(No.)	(No)
10–20	56	—	—	5	61	26	2	28
20–30	129	1	3	24	157	25	5	30
30–40	98	—	3	40	141	20	9	29
40–50	108	4	6	38	156	21	9	30
ALL FARMS	391	5	12	107	515	23	7	30

As indicated by the column, "Total Cattle per 100 Acres", the extent to which the available land was devoted to cattle of all kinds did not vary to any marked degree between the different size groups. As previously noted, however, the importance of cows in relation to " other cattle " decreased somewhat, according as size of farm increased. The number of cows on 1/5/'41 showed a reduction of 5 per cent. as compared with the number on 1/5/'40.

Sheep occupied a minor position on these farms, as is indicated by the following summary :—

NUMBER OF SHEEP ON FARMS ON 1/5/'40.

Size of Farm	No of Farms	No. of Breeding Sheep
10–20 acres	1	2
20–30 ,,	2	6
30–40 ,,	2	8
40–50 ,,	5	24
ALL FARMS	10	40

Cows.

During the year in question, all the cows included in Table XXII were not fully productive, as is shown by the following table :—

TABLE XXIII.—COWS NOT FULLY PRODUCTIVE DURING ACCOUNT PERIOD

Size of Farm	Cows Not in Calf	Cows Described as " Aborters "	Total Cows Not Fully Productive	Cows not fully Productive as Percentage of Total Cows on 1/5/'40
(Acres)	(No)	(No)	(No)	%
10–20	2	—	2	4
20–30	15	1	16	12
30–40	10	—	10	10
40–50	6	2	8	7
ALL FARMS	33	3	36	9

On the average, 9 per cent. of the cows in the herd on 1st May, 1940, were not fully productive. The comparable figure for the herds on farms in a North-Cork—Limerick district, surveyed in 1937-'38 and 1938-'39, was 8 per cent. in each of the two years.

For many reasons changes had to be made in the dairy herds during the account period. These changes are summarised in the following table :—

TABLE XXIV.—CHANGES IN DAIRY HERDS, BY SIZE OF FARM

Size of Farm	Cows Sold	Cows Died	Total Cows Drafted Out from Herds	Cows Drafted Out as Percentage of Total Cows on 1/5/'40	Cows Bought	Home-Reared Heifers Transferred Into Herds	Total Cows Drafted Into Herds	Home-Reared Heifers as Percentage of Total Cows Drafted Into Herds
(Acres)	(No.)	(No.)	(No.)	(%)	(No)	(No.)	(No)	(%)
10–20	12	1	13	23	4	1	5	20
20–30	12	6	18	14	5	6	11	55
30–40	10	4	14	14	2	9	11	82
40–50	16	1	17	16	6	8	14	57
ALL FARMS	50	12	62	16	17	24	41	59

On the average, 16 per cent. of the cows in the herds at the beginning of the period were drafted out during the period, 80 per cent. of the changes being made deliberately, and 20 per cent. resulting from deaths.

The comparable figure for the North-Cork—Limerick farms for 1937-'38 was 13 per cent. Approximately one-third of the cows which left the herds during the year had not been replaced at the beginning

of the next season. The table also shows that slightly more than half the replacements actually made during the period consisted of home-reared heifers.

The financial effects of the changes indicated in the above table are included in the operating costs, under the heading "Herd-replacement".

Milk Yields.

The quality of the dairy herds, as measured by the yield of milk per cow, was of fundamental importance in determining the total output of milk on these farms. An estimate of this factor is given in Table XXV.

Milk fed to calves is not taken into account, as this portion of the gross output of milk, having been used on the farms for further production, did not contribute to the value of the output of milk, as defined in this paper. Accordingly, the yields shown in the table are the "effective" and not the "gross" yields per cow.

Owing to the impossibility of calculating the extent to which the output of milk from the cows that were not fully productive, fell short of what they might normally have yielded, and, also, because it rarely happens that all the cows in a dairy herd prove fully productive in any year, the total number of cows in the herds on 1st May, 1940 (adjusted for sales during the milking season), has been used as the basis for making the estimate given in the table. An alternative estimate is subsequently given underneath the table.

TABLE XXV.—DISTRIBUTION OF AVERAGE "EFFECTIVE" MILK YIELDS, BY SIZE OF FARM.

"Effective" Milk-Yield Per Cow	Farms 10–20 Acres	Farms 20–30 Acres	Farms 30–40 Acres	Farms 40–50 Acres	ALL FARMS	
					No	Percentage
(Gallons)	(No)	(No.)	(No)	(No)	(No)	%
Under 250	2	2	2	1	7	11
250–350	5	6	6	7	24	40
350–450	4	10	3	3	20	33
450–550	3	4	3	—	10	16
Average "Effective" Yield per Cow (Gals)	361	370	347	326	351	
Milk-Production per acre crops and pasture (gallons)	95	91	68	68	78	

If, when making the estimate, only the number of cows that were fully productive had been taken into account, the average "effective" milk yield per cow would have worked out at 373 gallons. The true average, therefore, lay between 351 and 373 gallons per cow.

Were it not for the drought, the average yield would probably have been 406 gallons per cow, if the cows that were not fully productive were included; if these were excluded, the average would probably have been 447 gallons per cow. The true average, therefore, would have been between 406 and 447 gallons per cow.

Calf Mortality.

Table **XXVI** indicates the rate of calf mortality on the farms included in the survey. In the construction of this table, the calendar year 1940 has been substituted for the accounting year, May, 1940/April, 1941, which has been hitherto employed. This change has been made in order that the mortality rate may be simply expressed in relation to the production season concerned. Approximately three-fourths of the calves born in the 1940 and 1941 production seasons were born subsequent to the 1st March in each year.

TABLE XXVI — MORTALITY IN CALVES

Size of Farm	Calves Died, as Percentage of Calves Born Alive
(Acres)	%
10–20	15
20–30	22
30–40	32
40–50	18
ALL FARMS	22

The table is amplified by the following analysis :—

On 37 per cent. of farms — mortality rate — nil.
,, 15 ,, ,, — ,, ,, — under 20%
,, 30 ,, ,, — ,, ,, — 20–50%
,, 18 ,, ,, — ,, ,, — over 50%

The decrease in the value of output resulting from this calf mortality, expressed in terms of the total output of milk, was equivalent to almost 0·7 pence per gallon.

Pigs.

The position in regard to pigs may be briefly summarised as follows :—

1. On two farms, no pigs were kept during the year.

2. Sows were kept on 64 per cent. of the remaining farms as follows :—
   On 7 per cent. of the farms between 10 and 20 acres; on 64 per cent of the farms between 20 and 30 acres; on 79 per cent. of the farms between 30 and 40 acres; and on all the farms between 40 and 50 acres.

3. The farms on which sows were kept contributed 83 per cent. of the total number of pigs sold or killed for domestic use, and 76 per cent. of the total value of the output of pigs on all the farms.

4. Ninety-four per cent. of the total pigs sold off farms on which sows were kept, were home-bred; and three out of every five of these farms depended entirely on home-bred stocks of pigs.

5. On the farms as a whole, slightly less than one-fifth of the total number of pigs disposed of had been originally bought in.

6. Some of the sows on the farms on 1/5/'40 were sold or killed during the year and were not replaced. The number of sows on farms on 30th April, 1941, as compared with the number on 1st May, 1940, decreased as follows :—10-20 acre farms, 66 per cent.; 20-30 acre farms, 39 per cent.; 30-40 acre farms, 22 per cent.,; 40-50 acre farms, 42 per cent.; all farms, 38 per cent.

Poultry.

The distribution of the flocks of hens, by size of farm, is indicated in the following table :—

TABLE XXVII.—DISTRIBUTION OF FLOCKS OF HENS BY SIZE OF FARM, ON 1st MAY, 1940

Number of Hens per Flock	10–20 Acre Farms	20–30 Acre Farms	30–40 Acre Farms	40–50 Acre Farms	ALL FARMS	
					Number	Percentage Distribution
(No.)	(No)	(No)	(No)	(No)	(No.)	%
Under 25	2	2	4	—	8	13
25– 50	6	6	3	4	19	32
50– 75	3	8	4	1	16	26
75–100	—	3	3	1	7	11
100 and over	3	3	—	5	11	18
	14	22	14	11	61	100

The flocks of hens on 30/4/'41, as compared with those on 1/5/'40, decreased as follows :—By 47 per cent. on the 10-20 acre farms; by 34 per cent. on the 20-30 acre farms; by 25 per cent. on the 30-40 acre farms; and by 26 per cent. on the 40-50 acre farms. The decrease on all farms was 33 per cent.

The distribution of the flocks of ducks, geese and turkeys, by size of farm, is shown in the following table :—

TABLE XXVIII —DISTRIBUTION OF FLOCKS OF DUCKS, GEESE AND TURKEYS, BY SIZE OF FARM, ON 1st MAY, 1940

Number of Birds in Flocks	Farms 10–20 Acres	Farms 20–30 Acres	Farms 30–40 Acres	Farms 40–50 Acres	ALL FARMS
(No.)	(No.)	(No)	(No)	(No.)	(No)
		DUCKS			
Under 5	1	1	—	1	3
5–10	1	4	2	1	8
10 and over	4	3	4	6	17
TOTAL FARMS	6	8	6	8	28
		GEESE			
Under 5	4	8	8	4	24
5–10	—	1	—	1	2
TOTAL FARMS	4	9	8	5	26
		TURKEYS			
1	3	5	4	2	14
2	5	8	3	2	18
3	1	1	—	1	3
4	—	—	—	2	2
TOTAL FARMS	9	14	7	7	37

The flocks of ducks on 30th April, 1941, as compared with the flocks on 1/5/'40, decreased as follows:—10-20 acre farms, 27 per cent.; 20-30 acre farms, 51 per cent.; 30-40 acre farms, 58 per cent.; and 40-50 acre farms, 32 per cent. The average decrease on all farms was 40 per cent.

·Stocks of laying birds, therefore, decreased by 33 to 40 per cent. during the year under review. On the other hand, the flocks of geese and turkeys decreased by only 2 per cent. and 3 per cent., respectively, during the same period.

6. VALUE OF OUTPUT AND OPERATING COSTS AS DETERMINANTS OF "TOTAL LABOUR INCOME".

Tables XV and XVIII, which showed the financial results in terms of "surplus" and "employment capacity" per farm, respectively, implied that, even on farms of approximately the same size, there existed substantial differences in the "total labour income" per farm. These differences were the amalgam of prior differences in regard to the two factors: (a) total value of output, and (b) operating costs per farm. Accordingly, by way of conclusion, the relative importance of these two factors, as determinants of the "total labour income" on 36 farms, is indicated in Table XXIX.

These farms include eight from each of the size groups 13-19 acres, 30-39 acres, and 41-50 acres, and 12 from the size group 20-30 acres. In the case of all the size groups, half the number of farms selected were those with the highest "total labour income" per farm, and the other half, those earning the lowest "total labour income" per farm. (The original selection of the farms in the categories mentioned was made from sub-groups with a maximum range of five acres in each sub-group.).

· The figures in the table show, for the different items, the amount by which the average on the farms with the highest "total labour income" per farm exceeded (+), or was less than (−), the average on the farms earning the lowest "total labour income" per farm.

TABLE XXIX —AVERAGE VALUE OF OUTPUT AND OPERATING COSTS PER FARM, ON FARMS EARNING HIGHEST AND LOWEST LABOUR-INCOME PER FARM

ITEMS COMPARED	Farms 13–19 Acres	Farms 20–29 Acres	Farms 30–39 Acres	Farms 40–50 Acres
	£	£	£	£
Total Output per Farm	+109	+96	+86	+291
Total Operating-Costs per Farm	+15	− 1	−− 1	+154
Total Labour-Income per Farm	+ 94	+97	+87	+137
Labour-Income per "Unit" per farm	+ 34	+49	+32	+ 39

· This table indicates that the differences in "total labour income" in the case of the farms concerned were attributable, not so much to differences in the relative magnitude of the "costs" factor as to the differences in the value of the total output. As an amplification of the point, Table XXX has been constructed to show the extent to which the different farm enterprises, (omitting "Sundries"), con-

tributed to the extra output secured on the farms with the highest "total labour income".

TABLE XXX—PERCENTAGE CONTRIBUTION OF DIFFERENT FARM-ENTERPRISES TO THE EXTRA OUTPUT SECURED ON FARMS EARNING HIGHEST TOTAL LABOUR-INCOME (SUNDRIES OMITTED)

Products	Farms 13–19 Acres	Farms 20–29 Acres	Farms 30–39 Acres	Farms 40–50 Acres
	%	%	%	%
Milk	19	20	29	11
Cattle, Sheep, Horses	3	12	21	13
Crops and Vegetables	21	16	10	18
TOTAL "LAND"-PRODUCTS	43	48	60	42
Pigs	2	36	9	21
Poultry and Eggs	55	16	31	37
TOTAL "FARM-YARD" PRODUCTS	57	52	40	58
	100	100	100	100

Roughly speaking, about half the increase in output on the best farms was derived from the pig and poultry enterprises; slightly less than one-fifth from crops and vegetables; and approximately one-fifth from milk production. These proportions have, of course, considerably changed during the present accounting year, owing to the severe restrictions which the war situation has imposed on the production of pigs and poultry products.

I should like to conclude with a sincere expression of thanks to those farmers who so generously and patiently provided the data summarised in this paper, and to the management and staff of the creamery, for the advice and assistance which they so freely gave at all stages of the survey.

APPENDIX.

1. *Estimated Effects of (a) Drought, (b) Foot-and-Mouth Disease.*

Size of Farm	Estimated Reduction in Value of Milk	Estimated Reduction in Value of Livestock	Total Reduction
(Acres)	£	£	£
10–20	59	77	136
20–30	149	120	269
30–40	221	140	361
40–50	229	125	354
ALL FARMS	658	462	1,120

2. *Valuation of Products Used in Farmers' Homes.*

New Milk ... At creamery price, plus 0·8 pence per gallon to allow for the skim milk content.

Skim Milk ... At 1d. per gallon.

Potatoes ... At 8d. per stone for the quantities actually boiled—which quantities were normally in excess of the actual personal requirements of the household, especially during the period of flush supply.

Cabbage ... At 1d. per head.

Turnips ... At ½d. each.

Parsnips ...
Carrots ... } At 10d. per stone.

Onions ...
Pigs ...
Eggs ...
Poultry ... } At their sale value.

Wheat ... At the purchase price of an equivalent quantity of flour.

3. *Turf.*

Fifteen of the farmers concerned cut turf on nearby bogs. The nett value of this turf, i.e., estimated value in the farmyard less cost of turf-bank, and, in some cases, cost of carriage, has been included in the value of output under the heading " Sundries ". The amount involved was £108, distributed as follows :—10-20 acre farms, £37—five farms; 20-30 acre farms, £20—five farms; 30-40 acre farms, £31—three farms; 40-50 acre farms, £20—two farms. Although the turf was not produced *on* the farms, nevertheless it seemed more desirable, under the circumstances, to bring it into account in the manner stated, than to omit it, and make appropriate adjustments for the labour employed in turf-winning.

4. *Female Hired Labour.*

The cost of this item, as far as permanent female workers were concerned, has been calculated as follows :—An estimate was obtained of the total number of hours per day devoted by the female hired workers to farm work, as against household work, and the percentage of the total wages to be charged against the farm, was then calculated. The average number of hours worked per day (on farm and in the house) was taken to be 12. The cost of female casual labour has been calculated at the cash wages paid, plus an allowance, at the statutory rates, for such perquisites as were allowed.

5. *Female Family Labour.*

The quantity of female family labour chargeable against the farm has been calculated in the same manner as the quantity of female hired labour, and its value based on the average cost of equivalent hired labour.

6. *Male Family Labour.*

Male family labour has been equated to " units ", and its value calculated in accordance with the Agricultural Wages Act.

7. *National Health Insurance.*

The proportion of the National Health Insurance contribution payable by the farmer has been included as part of the cost of labour; W.C.A. insurance has been charged under the general heading, " Insurances ", as part of the ordinary operating costs.

8. *Non-Agricultural Earnings.*

In the case of six farms under 20 acres, and three farms over 20 acres, the ordinary farm income was supplemented by (1) earnings of members of the family who worked intermittently for other farmers, or for the County Council, and (2) earnings from horse-labour, and small quantities of road-making material supplied to the County Council. In the case of man-labour, the time spent off the farm has been adjusted by appropriate reductions in the number of family labour units charged against the farm, e.g., a man who worked for four weeks of the year on road-making has been equated to twelve-thirteenths of a " unit ", as far as the farm was concerned. In regard to horse-labour, however, no such method of adjustment could have been adopted, as there were no special data available in regard to total costs of horse-labour to which the " off-farm " earnings of horses could be related. Accordingly, these earnings, amounting to £95 in the case of the six farms under 20 acres, and to £23 in the case of the farms over 20 acres, have been included in the " value of output " under the heading " Sundries ".

The " off-farm " earnings of the family members referred to above, which have not been included in the accounts, amounted to £140 in the case of the farms under 20 acres, and to £61 in the case of the farms over 20 acres.

9. *Livestock Inventories.*

Cows.—Cows on 1/5/'40 have been taken at a " standard " value of £12 per head, which was the value used in previous " surveys ". The average value of the 50 cows sold during the year was £10 9s. 0d. per head, and the value of the 17 cows bought was £13 9s. 0d. per head. Cows bought and sold have been accounted for at the prices actually paid, and received. When valuing the herds on 30/4/'41, the purchased cows were included at their actual cost price.

Cattle.—Cattle on hands on 30/4/'41 have been taken at the farmers' valuations. Twenty-five per cent. of these cattle were sold in August, 1941, and realised an average of 16/- per head more than the valuations placed on them on the previous 30th April.

Heifers transferred into the herds have been valued at £12 and £16, according as they were two years or three years old, respectively.

Calves.—In Table XVI, calves have been valued at £3 per head.

Sows and Pigs.—Sows have been taken at a " standard " value of £5 per head, as on 1/5/'40 and 30/4/'41. Sows sold during the period have been brought into the accounts at their actual sale price. Opening and closing inventories of pigs have been valued in accordance with the farmers' valuations.

Sheep.—Breeding sheep have been taken at a ' standard " value of £2 10s. 0d. per head.

Draught-Animals.—Horses, ponies and mules have been included at the farmers' valuations, and donkeys at a "standard" value of £1 per head. Colts have been taken at the farmers' valuations.

Poultry.—The following "standard" valuations were used in the case of stock birds : Hens, 2/- ; ducks, 2/- ; geese, 5/-, and turkeys, 10/- per bird. Sales of stock birds during the year were included in the accounts at the actual prices obtained.

10. *Valuation of Land.*

The average value placed by the farmers on land, exclusive of farm buildings, averaged £16 per acre. This figure is very close to that used by Senator Johnston in his recent paper to the Society on "The Capitalisation of Irish Agriculture". On the other hand, in the case of a farm included in the survey, which changed hands a few years ago, the value deduced for the land alone averaged about £13 10s. 0d. per acre. Although, under the circumstances, £15 per acre would probably have been a reasonable figure to take, I decided to adopt a conservative estimate of £13 per acre, which happens to be the same as that used in the case of the North-Cork—Limerick farms surveyed in 1938 and 1939.

11. *Depreciation.*

The following were the rates of depreciation charged :—

	£	s.	d.
Horse	1	13	0
Pony or Mule	0	17	0
Plough	0	7	0
Harrow	0	5	0
Mower	1	0	0
Wheel-rake	0	15	0
Hay-cart	2	0	0
Swath Turner	1	0	0
Pulper	0	7	0
Furze-cutter	0	3	0
Creamery Can	0	5	0
Horse-cart	1	0	0
Pony-cart ⎫ Donkey-cart ⎭	0	15	0
Harness ⎰ Horse	0	7	0
⎱ Pony	0	6	0
⎳ Donkey	0	4	0

Other less important items of machinery and equipment were depreciated on a similar scale. Owing to the impossibility of arriving at a reliable estimate, no depreciation has been charged on buildings. Depreciation written off carts has been assumed to be sufficient to cover the renewal of wheels.