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WYE COLLEGE

(UNIVERSITY OF LONDON)

DEPARTMENT OF ECONOMICS

# Farm Management Survey

## REPORT No. V

Financial Results for 1950 and for the  
Five Years 1946 to 1950

By

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*Copies of this Report may be obtained, 5/- post free, on application  
to the Secretary, Wye College, Near Ashford, Kent*

# FARM MANAGEMENT SURVEY

## FINANCIAL RESULTS FOR 1950 AND FOR THE FIVE YEARS 1946 TO 1950

THIS report deals with the financial and economic aspects of farming in the counties of Kent, Surrey and Sussex. It refers mainly to the cropping year 1950 and is based on farm accounts closing at dates varying from September, 1950 to April, 1951: but it also considers the trend of farming results over the five years from 1946-47 to 1950-51.

The accounts and other records on which the work is based were collected by the Department of Economics of Wye College as part of the Farm Management Survey Scheme, an investigation carried out on a national scale, in conjunction with the Ministry of Agriculture, by certain Universities with the dual object of providing data for national purposes and forming a basis for local advisory work in farm management.

Four reports have already been published by Wye College dealing with the results of surveys made in previous years.

One of the purposes served by the regular publication of reports of this kind is to present a continuous record of economic changes in farming year by year. Consistency of presentation is, therefore, essential and the form of this year's report is partly determined by the need for comparability with those of previous years. Some changes in emphasis have been made in order to give variety and to bring out aspects of the data not previously considered in detail.

The purpose is not to provide a descriptive account of farming in South-Eastern England, or to lay down rules for achieving financial success, but merely to take a group of farms which are fairly typical of the region (although not necessarily representative in the strictly statistical sense) and to consider their financial results during 1950-51 and the previous four years. The objects of such an enquiry are, first, to see what changes have occurred in farming as a business since the war and how such changes are related to general economic trends; and, secondly, to consider the effects on profitability of variations in the size and type of farms. Such a survey must necessarily be somewhat broad and lacking in precision, but it provides a background for the detailed study of individual cases which is essential to effective advisory work in farm management.

For year by year comparisons, a large sample is desirable in order to give a good representation of all types of farming, but it is also important that the composition of the sample should vary as little as possible. It is difficult to attain both these objectives simultaneously. Each year some farmers cease to record owing to a variety of causes and if the size of the sample is to be maintained, others must be recruited to take their places, so that the composition of the group gradually alters. For this reason, the comparisons in the first section of the report are shown in two ways. First the figures for all recorded farms are compared year by year, so as to give the largest possible sample. A second comparison is then made, based on an identical sample of 59 farms for which continuous records are available for the whole period of five years, so as to eliminate errors due to changes in the composition of the sample.

A serious difficulty in the way of any interpretation of economic trends during the last five years is the great changes which have occurred in the value of money during that time. Income, expenditure and profit are all necessarily expressed in financial

terms and changes in the unit of measurement make comparisons extremely difficult. Farm records, for example, show a continuous increase in the value of both income and expenditure since 1946 but, as prices have been rising during the same period, this is no indication that the physical volume of sales and purchases has risen. Only by further examination of the data can the true state of affairs be established.

The period dealt with by the report is the five years immediately following the end of the war in Europe. It was a period of peculiar interest, covering not only the change over from wartime emergency measures to peacetime farming, but also the first five years since the war in which there were guaranteed prices for farm products. Although many of the characteristics of wartime agriculture still remained, yet there was a significant change in outlook. During the war, food production was the paramount consideration and costs were relatively unimportant. In the period we are considering, although maximum production was still vital, farmers were working on a much narrower margin, and profit had again become the final touchstone. Although the urgent need to economize scarce foreign exchange by home food production continued, it was becoming necessary to plan farming on a basis of enduring stability; and increases in output could be made only if the cost in labour and other resources was economically justified. Farming, in short, had once more to pay its way and to compete with other industries for the men and materials it needed.

In such circumstances there are two final tests of the efficiency of farming. The economic test is based on the most efficient use of resources as reflected in the ratio between costs and returns. This is largely a matter of management and the measure of success is profit. From the social angle the success of a farm is more likely to be judged by the total contribution it makes to the standard of living of the rural population, a matter which is influenced by such things as the level of employment, rate of wages paid and degree of intensity of cultivation, as well as by profit. Some attention is given to both these points of view in the following pages.

## THE FARMS

Kent is rather heavily represented in the sample with 102 farms, Sussex has 47 and Surrey only 17. This uneven distribution is of less moment than it would be in some other areas, for although farming conditions vary widely in the province, the range within each county is equally great.

Systems of farming are very diverse and there are few well defined "type of farming areas". For the purposes of this report, therefore, the region is treated as a whole, and divisions into farming types are made without reference to geographical boundaries.

In addition to the general farms with which we are chiefly concerned, the area contains three highly specialized kinds of farming, namely fruit growing, market gardening and hop growing. These occur mainly in Kent and their distribution is somewhat restricted. Farms on which a large part of the income is derived from these highly specialized crops have been excluded from the main group of mixed farms in this report, but a special section deals with the results obtained on 32 of these specialist holdings in Kent.

The most important single enterprise on general farms is milk production which occurs on 80 per cent. of the farms. On many of them milk is almost the only sale product, the arable land being devoted to growing fodder crops for the dairy herd. When milk is combined with other enterprises, cash crops are usually grown, and sheep are common. Pigs and poultry are often associated with dairying on the smaller holdings.

The farms chosen for study range from small dairy holdings of under 40 acres to mixed farms of over 1,000 acres; from farms deriving virtually their whole income from milk to those on which no cows are kept.

### GENERAL RESULTS

To give the broadest possible picture, the average results for all the 166 general farms co-operating in the scheme are shown in Table I without distinguishing size or type.

In this and subsequent tables the figures shown for the various items of expenditure and revenue are in all cases net figures and not simply cash payments or cash receipts. For example, expenditure on foodstuffs is not necessarily the amount actually bought during the year but consists of cash purchases *plus* the quantity in stock in the opening valuation *minus* the quantity in stock in the closing valuation and *minus* also any sales. Similarly, revenue from, say, sheep is made up of sales of sheep plus closing valuation *minus* opening valuation and purchases, and thus represents the actual net output from the sheep flock during the year. When prepared in this way, the tables show the actual cost or revenue attributable to each item and give a clearer picture of the results than figures relating only to sales and purchases.

TABLE I

#### *General Farms: Summary of Results, 1946 to 1950*

	1946	1947	1948	1949	1950
No. of Farms .. .. .	179	164	168	171	166
Average size (adjusted acres) .. ..	228	233	253	258	227
	£	£	£	£	£
Expenditure per 100 acres .. .. .	1,831	2,042	2,209	2,345	2,467
Revenue per 100 acres .. .. .	1,903	2,253	2,550	2,687	2,744
Profit per 100 acres .. .. .	72	211	341	342	277
Total labour per 100 acres .. .. .	789	874	935	920	931
Labour as percentage of total expenditure	43.6	42.8	42.3	39.1	37.7
Revenue per £100 labour .. .. .	239	258	273	292	295
Average valuation per 100 acres ..	1,889	2,033	2,209	2,345	2,376
No. of farms showing a profit .. ..	110	111	129	122	120
No. of farms showing a loss .. ..	69	53	39	49	46

The average size of farm, which had previously been increasing steadily, decreased in 1950 owing to the inclusion in that year of a number of small farms and the loss of some of the very large farms. The upward trend of both expenses and receipts continued, but profits, which had increased each year since 1946, showed a considerable decline in 1950. This was not a direct result of the reduced average size since all these calculations are made on a common basis of 100 acres.

The changes which have taken place over the last year or two are not large and, before considering them further, it is desirable to see how far variations in the sample may be responsible. This can be judged by comparing Table I with Table II showing the results for the identical sample of 59 farms which have co-operated throughout the period.

TABLE II

*Summarized Results for 59 Farms, 1946 to 1950*  
(Average size approximately 200 acres)

	1946	1947	Per 100 acres.		1950
	£	£	1948	1949	£
Total expenditure. . . . .	1,786	2,063	2,155	2,308	2,491
Total revenue . . . . .	1,819	2,191	2,463	2,550	2,746
Profit . . . . .	33	128	308	242	255
Total labour . . . . .	809	927	944	941	950
Revenue per £100 labour . . . .	222	236	262	271	289
Labour as percentage of total expenditure	45.3	44.9	44.1	41.8	38.3
Machinery expenses* . . . . .	281	341	368	408	465
Average valuation . . . . .	1,729	1,897	1,967	2,154	2,335

\* Fuel, Repairs and Depreciation.

When the same farms are considered throughout, the trend is very similar to that shown for the larger sample in Table I. The most marked divergence is the lower level of profit in 1949 in Table II. An identical sample of slightly different composition showed a similar reduction in profit in 1949 in last year's report and it is probable that this is the truer indication of the actual trend of profits.

A large part of the increases in both expenditure and revenue which are shown in the Tables was certainly due to rising prices and a comparison with the changes which were taking place in the general price level during this period will help to indicate the importance of this factor. For this purpose it is more satisfactory to make the comparison between 1947 and 1950, for, owing to seasonal causes, results in 1946 were rather abnormal (the profit in that year was much lower than for any other year since before the war).

Table III sets out, in the form of index numbers, some of the data for these 59 farms and compares them with certain indices of general agricultural and other prices, so that the percentage increases over the 1947 values (which are taken as 100 in each case) are easily seen.

TABLE III

*Indices of Changes in Farm Expenses and Income and in Price Levels, 1947-1950*  
(Value in 1947=100 in each case)

<i>Indices of Expenditure and Revenue on 59 Farms</i>						1950
Total expenditure	..	..	..	..	..	121
Total revenue	..	..	..	..	..	125
Profit	..	..	..	..	..	199
Total labour	..	..	..	..	..	103
Feedingstuffs	..	..	..	..	..	201
Seeds and Manures	..	..	..	..	..	113
Rent and rates	..	..	..	..	..	109
<i>Indices of General Price Levels</i>						
Prices of all Agricultural Products	..	..	..	..	..	112
Milk prices	..	..	..	..	..	118
Farm wages	..	..	..	..	..	114
Feedingstuffs prices	..	..	..	..	..	180
General wholesale prices	..	..	..	..	..	137

(The above indices are recalculated from data given in the *Monthly Digest of Statistics* and the *Farm Economist* and the Ministry of Agriculture's monthly Report on Feedingstuffs Prices.)



Tables I to III taken together, give a good summary of the main changes which have taken place in farming in the South-Eastern counties since 1947. The main conclusions that emerge from them may be summarized as follows:

(1) EXPENDITURE, REVENUE AND PROFIT.

The indices in Table III show increases of 21 per cent. for Expenditure and 25 per cent. for Revenue. This difference in the rate of increase was sufficient to allow the small profit margin of 1947 to double itself in 1950.

The actual Revenue increased more than the index of prices of agricultural products, which suggests that there has been an increase in real output during the period.

The overall increase of 21 per cent. in Expenditure was the net result of a number of changes. There was, for instance, a steep rise in expenditure on feedingstuffs (101 per cent.) but only very small increases in wage payments (3 per cent.) and Rent and Rates (8 per cent.). There has clearly been a considerable shift in emphasis as between the various components of farm expenditure. Farmers have been increasing their purchases of feedingstuffs, even at greatly enhanced prices, in response to the demand for higher output, but Rents have not increased and considerable economies have been effected in the use of labour.

(2) LABOUR AND MACHINERY COSTS.

One of the most interesting trends on these farms during the last five years has been the tendency to save labour by the greater use of machinery. The increase of only 3 per cent. in labour costs between 1947 and 1950 was appreciably less than the rise in minimum wages rates. Moreover labour costs, which had accounted for 45 per cent. of total farm expenditure in 1947 fell to only 38 per cent. of the total in 1950.

These reductions may be compared with the increased costs of fuel, repairs and depreciation in order to obtain some idea of the shift which has occurred between labour and machinery costs. Part of the increased expenditure on fuel and repairs was due to rising prices but the probability that real increases occurred in the use of machinery is further supported by the higher cost of wear and tear despite unchanged depreciation rates.

TABLE IV

*Comparison of Labour and Machinery Costs per 100 acres (59 Farms) 1947-1950*

	1947		1950	
	Actual £	Index	Actual £	Index
Cost of Hired Labour per 100 acres ..	839	100	880	105
Total labour (including family) per 100 acres	927	100	950	103
Cost of contract work per 100 acres ..	74	100	88	119
Cost of fuel and repairs per 100 acres ..	240	100	333	139
Depreciation of implements per 100 acres ..	100	100	132	132

No precise comparison can be made in cash terms between savings in labour and increases in machinery costs and, in any case, non-financial considerations such as speed and convenience of working enter into the question. We may conclude, however, that there was some net gain in productive efficiency which helped to bring about the increase in total receipts already mentioned.

(3) RENTS.

The most important single item of fixed capital employed in farming is the farm itself with its land, buildings, roads, fences and improvements.

The charge for Rent and Rates (which are not stated separately) increased by only 8 per cent. between 1947 and 1950, a large part of the increase being no doubt due to higher Rates. The cash return received by the owner of the land was, therefore, little higher in 1950 than in 1947 and, in real terms, it was considerably less. The position of the landowner is, however, in reality worse than appears from this comparison; first, because rent is a gross receipt, out of which have to be met repairs and management expenses at increasing cost; and, second, because rents have risen very little since before the war. Direct comparisons are difficult because few farms provide continuous records for so long a period, but published material\* indicates a total increase in Rents of not more than 25 per cent. between 1938 and 1950 whilst maintenance costs have nearly doubled in the same period.

It is clear from these figures that the return on landlords' capital is now relatively very low. Since many farmers are owners of their farms, this affects them directly and considerably adds to the financial difficulties of farming. It also means that the earnings of capital invested in land no longer provide any margin out of which improvements, or even ordinary repairs, can be financed, which has led to a growing tendency for such work to be paid for by tenants and owner occupiers out of profits. The result is a further restriction of the already limited capital available for farming purposes.

#### (4) INVESTMENT IN STOCK AND EQUIPMENT.

The "Average Valuation" figures provide a useful year to year comparison, but they cannot be used as a measure of capital investment in the farms. In the first place, they represent merely inventory totals taken at the end of the financial year and may reflect very imperfectly the capital requirements of the farms to which they refer. Further, the basis of valuation used is frequently influenced by costs of stock and equipment many years ago when the farms were first taken over, and these may fall far short of the amounts needed to establish similar undertakings at the present time. For the same reason the "profit on capital" is not a reliable guide to the relative prosperity of the farms. Making allowance for these weaknesses in the data, it is, however, safe to say that capital investment is continuing to increase. Expenditure on new equipment is still substantial and inventories continue to rise in spite of the effects of rigid valuation levels and fairly heavy depreciation charges. This provides further confirmation of the point already made that economies in labour have been made possible partly by the use of more capital.

### EFFECTS OF SIZE AND TYPE OF FARMING

With such a varied group of farms only very broad comparisons can be made, and the previous paragraphs have been confined to an examination of basic trends in farming in the area during the past few years.

This broad study of general trends needs to be supplemented by a more analytical approach and, in the sections which follow, the farms are grouped according to size and type in order to bring out the effects of these essential differences on organization and financial results.

There are certain economies in production which depend on the size of the farm. The larger farms can employ more labour-saving machinery and derive more benefit from the specialized and organized productive methods which have resulted in such striking economies in urban industry. The smaller farm gains in simplicity of management and in the greater care and interest of the family workers who frequently make up

\* An Enquiry into Agricultural Rents and the Expenses of Landowners in England and Wales, 1949 and 1950: Country Landowners' Association and the Ministry of Agriculture and Fisheries.



the bulk of its labour force. In so far as factors of this kind may be expected to exert an overriding influence, some degree of correlation between farm size and the level of costs and returns might be looked for if the farms are divided into size groups. Such a division is made in Table V below.

TABLE V  
*Analysis of Results by Size of Farm*

	Acreage groups			
	0-100	101-250	251-400	401 and over
No. of farms .. .. .	55	65	20	26
Average size (adjusted acres) .. .. .	59	160	315	655
	£	£	£	£
Labour cost per 100 acres .. .. .	1,199	1,027	1,113	754
Machinery costs per 100 acres* .. .. .	497	535	533	413
Total expenditure per 100 acres .. .. .	3,326	2,761	2,856	1,981
Total revenue per 100 acres .. .. .	3,442	2,898	3,157	2,365
Profit per 100 acres .. .. .	116	137	301	384
Average valuation per 100 acres .. .. .	2,835	2,577	2,903	1,923
Revenue per £100 labour .. .. .	287	282	284	314
Profit per farm .. .. .	69	220	947	2,511

\* Repairs, Fuel and Depreciation.

The cost of labour per 100 acres was much lower on the over 400 acre farms than on the others. This is one aspect of the less intensive farming in this group but it does not denote any reduction of labour costs in relation to other expenses. In fact, the proportion of labour expenses to total expenditure was practically the same throughout the size range.

The level of machinery costs also showed a large reduction in the over 400 acre size group, but in this case there was an actual increase in relative expenditure compared with other groups, the ratio of machinery costs to total expenditure being 15 per cent. for the farms of 100 acres or less, 19 per cent. on farms between 100 and 400 acres and 21 per cent. for those over 400 acres.

If £300 be taken as a convenient unit to represent the value of one man's work for a year, the above relationships may be expressed by saying that, for every man employed, the following productive factors were used :

	Farms under 100 acres	Farms 101-250 acres	Farms 251-400 acres	Farms over 400 acres
Machinery running costs .. .. .	£124	£157	£143	£164
Capital Investment .. .. .	£708	£753	£783	£765
Area of land .. .. .	25 acres	29 acres	27 acres	40 acres

This comparison makes it clear that the main difference lies in the fact that on the larger farms the same amount of productive resources were spread over a larger area of land.

The larger farmers had considerably higher outputs. They raised the return on labour outlay to £314 for every £100 spent. They also raised the rate of return on their capital well above that on the smaller farms. Profit per 100 acres was very substantially increased.

On the face of it, it appears that the larger farms, with very little change in the organization except the use of slightly more capital, were able, by spreading their resources over a larger area of land, to produce rather striking increases in the rate of profit per unit of capital and labour employed compared with their smaller neighbours,

on account of the greater scope offered by larger units for improved organization and management. Probably this view contains an element of truth ; but it must not be accepted without reservations for there is another factor to take into account, namely, the difference in type between the large and small farms. For example, the latter concentrate a great deal on milk production whilst the larger farms are more concerned with cash crops and livestock enterprises. It may be that the differences in profitability were due rather to differences in the kind of farming practised than to management or organization.

To follow up this line of enquiry involves separating the size groups into different farming types. A detailed analysis would not be very helpful as it would result in groups too small for significant results. In Table VI, however, a division has been made based on the importance of milk production in the farm economy. Farms are grouped as "milk producers", with over 70 per cent. of the total income derived from sales of milk ; "mixed farms" with 30 per cent. to 70 per cent. milk sales, and "non-milk farms" which are wholly dependent on other enterprises. This division gives a rough indication of farm type, although some of the groups are too small to be significant. To make the division more distinct a few farms with milk sales of less than 30 per cent. have been omitted.

TABLE VI  
*Summary of Results by Size and Type Groups*

	0-100 acres	101-250 acres	251-400 acres	Over 400 acres
<b>MILK PRODUCERS (over 70 per cent. of income from Milk)</b>				
No. of farms .. .. .	26	13	4	—
	£	£	£	£
Labour per 100 acres .. .. .	1,288	1,166	1,022	—
Machinery costs per 100 acres .. .. .	485	546	467	—
Total expenditure per 100 acres .. .. .	3,563	3,179	2,912	—
Total revenue per 100 acres .. .. .	3,753	3,230	3,112	—
Profit per 100 acres .. .. .	190	51	200	—
Average valuation per 100 acres .. .. .	2,910	2,620	3,210	—
Revenue per £100 labour .. .. .	291	277	304	—
<b>MIXED FARMS (30 per cent.—70 per cent. of income from Milk)</b>				
No. of farms .. .. .	18	33	12	20
	£	£	£	£
Labour per 100 acres .. .. .	1,156	1,101	1,257	680
Machinery costs per 100 acres .. .. .	487	573	563	357
Total expenditure per 100 acres .. .. .	3,209	3,038	3,082	1,720
Total revenue per 100 acres .. .. .	3,151	3,169	3,248	2,040
Profit per 100 acres .. .. .	-58*	131	166	320
Average valuation per 100 acres .. .. .	2,950	2,765	3,150	1,760
Revenue per £100 labour .. .. .	272	288	258	300
<b>NON-MILK FARMS</b>				
No. of farms .. .. .	11	15	3	3
	£	£	£	£
Labour per 100 acres .. .. .	1,072	669	732	753
Machinery costs per 100 acres .. .. .	543	388	563	470
Total expenditure per 100 acres .. .. .	2,992	1,651	2,087	2,396
Total revenue per 100 acres .. .. .	3,251	1,835	3,100	2,933
Profit per 100 acres .. .. .	259	184	1,013	537
Average Inventory per 100 acres .. .. .	2,450	2,010	1,775	1,798
Revenue per £100 labour .. .. .	303	275	423	389

\*Loss

The conclusions which emerge from this table may be summarized briefly.

**EFFECTS OF FARM SIZE.** The results agree broadly with those already shown in Table V, but it now becomes clear that the profitability of the larger farms was due in some measure to their being engaged in remunerative forms of production other than dairying. Where farms of roughly similar type are considered, however (the "mixed" group), the advantages due to operation on a large scale are very apparent.

**MILK PRODUCERS.** Scale of operations appears to be almost irrelevant as a factor in milk production. The smallest dairy farms gave results fully equal to the larger ones. No farm over 400 acres derived as much as 70 per cent. of its income from milk, which suggests that this form of specialization is more suited to smaller units. Nevertheless, on three of the mixed farms of over 400 acres milk contributed 60 per cent. or more to total income and these farms were more successful than the other mixed farms in their size group.

**NON-MILK FARMS.** The highest profits were earned by farms concentrating on products other than milk. On the larger farms these were mainly cash crops, with sheep or cattle as subsidiary enterprises: the small farms had cash crops and often pigs or poultry. In this category of "non-milk" farms specialization of production was more marked on the farms of extreme size, i.e. those under 100 acres and over 250 acres, the medium sized holdings being more mixed. These more specialized farms tended to operate at a higher level of intensity and were, on the whole, the most successful groups in this category, but the results shown for non-milk farms over 250 acres are no more than indications of possible trends owing to the small numbers of cases included.

**MIXED FARMS.** The mixed farms were the least profitable as a group. Within the group results improved steadily with increasing size. Mixed farming appears to be relatively unprofitable on small acreages, and it was not until 400 acres was exceeded that really substantial improvements in returns were obtained. This is perhaps because a mixed farm has to be fairly large before each of its enterprises can reach an economic size. On the over 400 acre farms, inputs per 100 acres of both capital and labour were much lower than on the smaller farms but the rate of profit was considerably higher.

**LABOUR COSTS.** The importance of labour as an element of cost was almost the same on nearly all types of farm at 35-36 per cent. of total costs. The exceptions were mixed farms over 250 acres (40-42 per cent.) and non-milk farms over 400 acres (31 per cent.). There was little correlation between the amount of labour used in the productive process and the revenue per unit of labour employed.

**MACHINERY COSTS AND CAPITAL INVESTED.** Machinery costs varied from 13½ per cent. of total expenses on the smallest dairy farms to 27 per cent. on the 251-400 acre non-milk farms. The milk producers had the lowest machinery costs; the non-milk farms the highest. The proportion of machinery costs increased steadily in each size group as the part played by dairying in the farm economy diminished. This is the effect of the greater use of machinery in crop production as compared with livestock husbandry. On the other hand the total amount of capital invested (average valuation) declined in each group as dairying and mixed farming gave way to arable cultivation, because of the reduced investment of capital in dairy herds. The valuation average is, however, an unreliable guide to actual capital investment.

## FARM OUTPUT

Profitability is one measure of the efficiency of farming; but it is rather a limited one, which measures only the degree of success attained by the farmer in maximizing his own income. The achievement of the industry from a wider social standpoint cannot be measured only in terms of profit.

An alternative measure of the social contribution made by the farm is the total amount which it provides for the maintenance of the rural population as a whole. Not only the farmer but also the workers are supported by the farm, and the rent paid is a part of the income of the landlord. Taking profit, wages and rent together, therefore, we get a figure, sometimes referred to as "social income", which shows the amount available for the maintenance of the three partners—farmer, worker and landowner—who look to the farm for their support. Table VII compares the social incomes of the different farming groups with which we have been dealing.

TABLE VII  
*Social Income per 100 acres by Size and Type of Farming*

	Milk producers		Mixed farms		Non-milk farms	
	per 100 acres	%	per 100 acres	%	per 100 acres	%
	£		£		£	
<b>FARMS UP TO 100 ACRES</b>						
Farmer .. ..	190	11	-58	-5	259	17
Workers .. ..	1,288	76	1,156	90	1,072	72
Landlord .. ..	215	13	190	15	170	11
Total .. ..	1,693	100	1,288	100	1,501	100
<b>FARMS 101-250 ACRES</b>						
Farmer .. ..	51	4	131	10	184	19
Workers .. ..	1,166	86	1,101	79	669	67
Landlord .. ..	144	10	158	11	141	14
Total .. ..	1,361	100	1,390	100	994	100
<b>FARMS 251-400 ACRES</b>						
Farmer .. ..	200	15	166	10	1,013	53
Workers .. ..	1,022	74	1,257	80	732	39
Landlord .. ..	158	11	166	10	156	8
Total .. ..	1,380	100	1,589	100	1,901	100
<b>FARMS OVER 400 ACRES</b>						
Farmer .. ..	—	—	320	29	537	34
Workers .. ..	—	—	680	61	753	48
Landlord .. ..	—	—	112	10	284	18
Total .. ..	—	—	1,112	100	1,574	100

Apart from the non-milk farms over 250 acres (which are best ignored as they comprise only three farms in each group) the highest average social income was reached on the small intensive dairy farms and on the mixed farms of 251-400 acres. There is, however, no regular trend in the figures and there is little to choose between different types or sizes of farms in the total contribution they make to the maintenance of the rural population.

The shares of social income which went to manual labour and to land ownership were higher on the small farms than on the larger holdings where there is more scope for the exercise of purely managerial functions. On the small farms a substantial part of the

workers' share was in fact received by the farmer, who is himself a manual worker on most of these farms. Rents are relatively higher on small holdings because the buildings form a larger proportion of the total than on larger farms. It must be remembered that, unlike wages and profits, rent is not a net income to the landowner, but has to cover the cost of repairs and management.

### SPECIALIST FARMS

Hitherto we have been dealing with general farming and a tendency has emerged for more specialized holdings to yield rather better results than those which are more mixed. The specialization with which we have so far been concerned has consisted merely of an emphasis on one particular department of ordinary farming, such as milk production or arable cash crops. Previous reports in this series have shown that holdings which moved outside the normal range of farm crops and specialized in the growing of hops, fruit or market garden crops were even more profitable. This tendency continued in 1950, and 32 farms growing these crops made an average profit of £970 per 100 acres compared with an average of £277 per 100 acres on all the general farms.

Analysis has shown a wide variation in the results of the general farms, and a similar range exists in the specialist farms. Table VIII below shows that of the 32 farms studied, it was the fruit and hop growers who were most successful, whilst the market gardeners actually fared worse than the average general farmer, but the sample is too small to enable any general conclusions to be based on these results.

TABLE VIII

#### *Results of Farms growing Special Crops*

	Fruit farms	Hop farms	Market gardens
No. of farms .. .. .	8	15	9
Average size (adjusted acres) .. .. .	118	189	43
	£	£	£
Labour per 100 acres .. .. .	2,728	2,404	3,865
Machinery costs per 100 acres .. .. .	1,032	692	1,507
Total expenditure per 100 acres .. .. .	6,086	5,039	8,634
Total revenue per 100 acres .. .. .	7,485	5,982	8,757
Profit per 100 acres .. .. .	1,399	943	123
Average valuation per 100 acres .. .. .	5,122	3,338	4,198
Revenue per £100 labour .. .. .	274	249	227
Profit per farm .. .. .	1,658	1,785	53
Social income per 100 acres .. .. .	4,376	3,558	4,314

These figures reveal a style of cultivation entirely different from that on the general farms in its degree of intensity. The amount of capital and labour applied per acre is about double that on general farms and the turnover is correspondingly higher. The level of profit is very dependent on current prices and poor prices for vegetables during the year had a disastrous effect on returns from the market garden holdings. In spite of the high capitalization and intensity of cultivation the rate of return on labour, as shown by the revenue per £100 of labour expenditure, is rather lower than on general farms. The social income per 100 acres is naturally very high on account of the large concentration of resources per unit of area.

## SUMMARY

A study of the results of 166 general farms in the counties of Kent, Surrey and Sussex for the cropping year 1950 leads to the following main conclusions.

(1) There has been a steady rise in both expenses and revenue during the last five years, accounted for largely by rising prices, but also indicative of some increase in real output.

(2) Economies have been effected in the use of labour and these were assisted by a greater use of mechanical equipment, and an increased investment of capital.

(3) In spite of higher costs of maintenance, rents have risen hardly at all and are now well below economic level.

(4) When farms were divided into size groups, it appeared that those over 250 acres earned appreciably higher average profits per acre than those below that size.

(5) An examination of the effect of type of farming on the results confirmed the greater profitability of the farms over 250 acres in size but showed that this was associated with a higher degree of dependence on cash cropping. Mixed farming systems were, on the whole, less successful than those which concentrated on specific enterprises, such as milk or cash crops. Good returns from mixed farming were obtained only when the farms were rather large.

(6) There was little variation in the relative labour requirements of farms of different types. Average labour costs were about 36 per cent. of total expenses on most farms irrespective of size or type.

(7) Dairy farms and mixed farms had the highest capital investment per acre, largely in the form of dairy cows and young stock. The current value of the capital assets on these farms is, however, appreciably higher than the inventory figures. Machinery costs per 100 acres (fuel, repairs and depreciation) were highest on arable farms.

(8) Farms under 100 acres provided the largest "social income" or contribution to maintenance of the rural population as a whole, but the difference was very slight. The social income of the large farms was almost as high as that of the small ones but a higher proportion went to the farmer in the form of profit; whereas on the smaller farms the manual workers received a bigger share.

(9) Farms growing fruit and hops were more intensively worked and made far higher rates of profit than general farms. Market gardens, the most intensive of all, did badly during 1950 owing to poor prices.

## ACKNOWLEDGEMENT

The results given in this report could not have been obtained without the active help of the farmers concerned and to these farmers acknowledgement of their co-operation is gratefully made.

*April, 1952.*



## APPENDIX

## SCHEDULE OF DEFINITIONS

*Adjusted Acreage.* Allowance is made for rough grazing and other relatively poor land.

## EXPENDITURE

*Labour.* Hired: All hired labour, including salaried management. Family: Allowance for work done by relations and family workers. Farmer: Manual work done by the farmer.

*Foods.* All purchased foodstuffs, hay, straw and payment for stock put out to keep.

*Note.*—In arriving at the expenditure figures for foods, seeds, manures and sundries, the opening and closing stocks on hand are taken into account.

*Seeds.* All seeds, plants, bushes and trees purchased.

*Manures.* All mixtures, lime, slag, organic and other manures. Subsidies on lime are deducted. No allowance is made for home produced farmyard manure.

*Rent and Rates.* Rent and/or rental value of the occupied land, rates on the farmhouse and cottages and drainage rates.

*Repairs.* Repairs to machinery and implements and the cost of small tools.

*Fuel.* Petrol, paraffin, oil, coke and coal.

*Contract Work.* Work done by contractors and hire of implements.

*Sundries.* All other expenses not included above.

*Implement Depreciation* is obtained by adding together the opening valuation and the cost of new implements and deducting the closing valuation and sales of implements.

## REVENUE

*Livestock Output* is arrived at by deducting the opening valuation plus purchases from the closing valuation plus sales.

*Milk.* All wholesale and retail milk, excluding allowances to workers and the farmhouse, minus milk purchased.

*Crops.* Sales of crops plus valuation of harvested and growing crops and tillages at the end of the year, *minus* the valuation of harvested and growing crops and tillages at the beginning of the year.

*Fruit.* All fruit sales.

*Hops.* All hop sales.

*Sundries.* Allowances for milk and other produce to workers and to farmhouse; also rent and rates on farmhouse and cottages, and all other sales not included above.

*Government Grants.* The grant for ploughing up eligible pastures, for rearing calves and assistance towards drainage and water supply schemes. Crop acreage payments appear under crops.

PROFIT

*Realized.* The excess of receipts over payments.

*Unrealized.* The amount by which the total valuations at the end of the year exceed those at the beginning of the year.

AVERAGE VALUATIONS

The average of the opening and closing valuations of live and dead stock, etc.

CAPITAL INVESTED

Taken as equivalent to the average valuations.

TABLE I

*Average Results for 1950*  
*General Farms*

No. of farms .. .. .	166
Average acreage (total) .. .. .	240
Average acreage (adjusted) .. .. .	227

	Per farm	Per 100 acres (adjusted)	Per cent
	£	£	
<b>EXPENDITURE</b>			
Labour: Hired .. .. .	1,893	850	34.5
Family .. .. .	35	16	0.6
Farmer .. .. .	144	65	2.6
<b>TOTAL</b> .. .. .	<b>2,072</b>	<b>931</b>	<b>37.7</b>
Foodstuffs .. .. .	806	362	14.7
Seeds .. .. .	278	125	5.1
Manures .. .. .	346	155	6.3
Rent and Rates .. .. .	352	158	6.4
Repairs and renewals .. .. .	475	213	8.6
Depreciation on machinery, etc. .. .. .	319	143	5.8
Fuel .. .. .	264	119	4.8
Contract work .. .. .	167	75	3.0
Sundries .. .. .	417	186	7.6
<b>TOTAL EXPENDITURE</b> .. .. .	<b>5,496</b>	<b>2,467</b>	<b>100.0</b>
Capital invested .. .. .	5,254	2,376	—
<b>REVENUE</b>			
Livestock output:			
Cattle .. .. .	514	231	8.4
Sheep .. .. .	299	134	4.9
Pigs .. .. .	183	82	3.0
Poultry and eggs .. .. .	171	77	2.8
<b>TOTAL</b> .. .. .	<b>1,167</b>	<b>524</b>	<b>19.1</b>
Milk .. .. .	2,664	1,196	43.6
Crops, other than fruit and hops .. .. .	1,902	854	31.1
Fruit .. .. .	40	18	0.7
Hops .. .. .	—	—	—
Sundries .. .. .	269	121	4.4
Government grants .. .. .	70	31	1.1
<b>TOTAL REVENUE</b> .. .. .	<b>6,112</b>	<b>2,744</b>	<b>100.0</b>
<b>PROFIT: Realized</b> .. .. .	<b>282</b>	<b>127</b>	<b>—</b>
Unrealized .. .. .	334	150	—
<b>TOTAL</b> .. .. .	<b>616</b>	<b>277</b>	<b>—</b>
Revenue per £100 labour .. .. .	295	—	—
Cost of new machinery and implements .. .. .	543	244	—
Sales of machinery and implements .. .. .	59	26	—
No. of farms showing a profit .. .. .	120	—	—
No. of farms showing a loss .. .. .	40	—	—

TABLE II  
General Mixed Farm Results for 1950 by Size Groups

	Per farm				Per 100 acres (adjusted)				Per cent.			
	up to 100	101 to 250	251 to 400	over 400	up to 100	101 to 250	251 to 400	over 400	up to 100	101 to 250	251 to 400	over 400
Size-group (adjusted acres) .. ..												
No. of farms in group .. ..	55	65	20	26								
Average size of farms (adjusted acres)	59	160	314	655								
EXPENDITURE	£	£	£	£	£	£	£	£				
Labour: Hired .. ..	484	1,494	3,320	4,779	819	934	1,055	729	24.6	33.8	37.0	36.8
Family .. ..	28	31	24	68	47	19	8	10	1.4	0.7	0.3	0.5
Farmer .. ..	197	117	156	90	333	73	50	14	10.1	2.7	1.7	0.7
TOTAL .. ..	709	1,642	3,500	4,937	1,199	1,026	1,113	753	36.1	37.2	39.0	38.0
Foodstuffs .. ..	489	732	1,300	1,284	827	457	413	196	24.9	16.6	14.5	9.9
Seeds .. ..	65	192	515	759	111	120	164	116	3.3	4.3	5.7	5.8
Manures .. ..	71	254	558	992	121	159	177	152	3.6	5.8	6.2	7.6
Rent and rates .. ..	117	246	513	990	198	153	163	151	5.9	5.6	5.7	7.6
Repairs and renewals .. ..	125	386	709	1,260	210	241	226	192	6.3	8.7	7.9	9.7
Depreciation on machinery, etc. ..	87	252	528	814	148	158	168	124	4.4	5.7	5.9	6.3
Fuel .. ..	82	217	441	631	139	136	140	96	4.2	4.9	4.9	4.9
Contract work .. ..	73	142	259	356	123	89	82	55	3.8	3.2	2.9	2.9
Sundries .. ..	148	354	659	954	250	222	210	146	7.5	8.0	7.3	7.3
TOTAL EXPENDITURE ..	1,966	4,417	8,982	12,977	3,326	2,761	2,856	1,981	100.0	100.0	100.0	100.0
Cost of new machinery and implements	150	439	771	1,456	253	275	245	222				
Sales of machinery and implements ..	23	42	81	159	39	26	26	24				
Capital invested .. ..	1,676	4,123	9,132	12,595	2,835	2,577	2,903	1,923				

TABLE II—continued  
General Mixed Farm Results for 1950 by Size Groups

Size-group (adjusted acres) ..	Per farm				Per 100 acres (adjusted)				Per cent.			
	up to 100	101 to 250	251 to 400	over 400	up to 100	101 to 250	251 to 400	over 400	up to 100	101 to 250	251 to 400	over 400
REVENUE	£	£	£	£	£	£	£	£				
Livestock output:												
Cattle .. .. .	171	371	803	1,376	289	232	255	210	8.4	8.0	8.1	8.9
Sheep .. .. .	47	247	472	829	80	154	150	127	2.3	5.3	4.8	5.3
Pigs .. .. .	78	186	282	319	131	116	90	49	3.8	4.0	2.8	2.1
Poultry and eggs ..	157	175	187	179	266	110	60	27	7.7	3.8	1.9	1.1
TOTAL .. .. .	453	979	1,744	2,703	766	612	555	413	22.2	21.1	17.6	17.4
Milk .. .. .	1,199	2,424	4,403	5,027	2,028	1,515	1,400	768	58.9	52.4	44.3	32.5
Crops, other than fruit and hops ..	231	962	3,212	6,776	391	602	1,021	1,034	11.4	20.7	32.4	43.7
Fruit .. .. .	16	34	91	70	26	21	29	11	0.8	0.7	0.9	0.5
Hops .. .. .	—	—	—	—	—	—	—	—	—	—	—	—
Sundries .. .. .	115	183	405	702	195	114	129	107	1.0	1.2	4.1	1.4
Government grants ..	21	55	73	210	36	34	23	32	5.7	3.9	0.7	4.5
TOTAL REVENUE ..	2,035	4,637	9,928	15,488	3,442	2,898	3,157	2,365	100.0	100.0	100.0	100.0
PROFIT .. .. .	69	220	946	2,511	116	137	301	384				
Revenue per £100 labour ..	287	282	284	314								
No. of farms showing a profit ..	39	43	16	22								
No. of farms showing a loss ..	16	22	4	4								

TABLE III

*Results for the Same Fifty-Nine General Mixed Farms over Five Years  
Per 100 acres (adjusted)*

	1946	1947	1948	1949	1950
Average Acreage (adjusted) .. ..	196	190	201	203	203
EXPENDITURE	£	£	£	£	£
Labour: Hired .. ..	734	839	875	872	880
Family .. ..	13	24	12	11	12
Farmer .. ..	62	64	56	58	58
TOTAL .. ..	809	927	943	941	950
Foodstuffs .. ..	166	177	189	253	357
Seeds .. ..	102	136	134	132	127
Manures .. ..	94	112	123	143	153
Rent and Rates .. ..	138	146	148	151	159
Repairs and renewals .. ..	146	145	164	182	213
Depreciation on Machinery, etc. .. ..	65	101	110	125	132
Fuel .. ..	70	94	94	100	120
Contract work .. ..	67	74	82	105	88
Sundries .. ..	129	151	168	176	191
TOTAL EXPENDITURE .. ..	1,786	2,063	2,155	2,308	2,490
Capital invested .. ..	1,729	1,898	1,967	2,154	2,335
REVENUE					
Livestock output:					
Cattle .. ..	143	256	239	203	219
Sheep .. ..	76	101	117	142	168
Pigs .. ..	10	16	28	43	58
Poultry and eggs .. ..	30	43	52	73	77
TOTAL .. ..	259	416	436	461	522
Milk .. ..	813	879	992	1,126	1,317
Crops (including fruit) .. ..	664	814	908	846	782
Sundries .. ..	77	76	103	85	94
Government grants .. ..	6	6	24	32	30
TOTAL REVENUE .. ..	1,819	2,191	2,463	2,550	2,745
PROFIT .. ..	33	128	308	242	255
Revenue per £100 labour .. ..	222	236	262	271	289
Cost of new machinery and implements .. ..	105	183	230	272	217
Sales of machinery and implements .. ..	15	30	32	30	15
No. of farms showing a profit .. ..	34	35	46	45	44
No. of farms showing a loss .. ..	25	24	13	14	15



TABLE IV  
Average Results for 1950  
Specialist Farms

	Fruit farms			Hop farms			Market gardens		
	8 124.7 118.5			15 197.5 189.2			9 43.8 43.3		
	Per farm	Per 100 acres (adjusted)	Per cent.	Per farm	Per 100 acres (adjusted)	Per cent.	Per farm	Per 100 acres (adjusted)	Per cent.
EXPENDITURE	£	£		£	£		£	£	
Labour: Hired .. .. .	3,133	2,644	43.4	4,451	2,352	46.7	1,427	3,290	38.2
Family .. .. .	4	3	0.1	5	3	—	83	191	2.2
Farmer .. .. .	96	81	1.3	93	49	1.0	167	384	4.4
TOTAL .. .. .	3,233	2,728	44.8	4,549	2,404	47.7	1,677	3,865	44.8
Foodstuffs .. .. .	394	333	5.5	788	416	8.3	286	658	7.6
Seeds .. .. .	262	221	3.6	302	159	3.2	203	469	5.4
Manures .. .. .	588	496	8.1	661	349	6.9	297	684	7.9
Rent and rates .. .. .	294	248	4.1	399	211	4.2	141	326	3.8
Repairs and renewals .. .. .	547	462	7.6	549	290	5.8	224	516	6.0
Depreciation on machinery, etc. .. .. .	437	369	6.1	354	187	3.7	188	433	5.0
Fuel .. .. .	238	201	3.3	406	215	4.3	242	557	6.5
Contract work .. .. .	133	112	1.8	217	115	2.2	82	191	2.2
Sundries .. .. .	407	343	5.7	568	300	5.9	277	638	7.4
Stores .. .. .	679	573	9.4	744	393	7.8	129	297	3.4
TOTAL EXPENDITURE .. .. .	7,212	6,086	100.0	9,537	5,039	100.0	3,746	8,634	100.0
Capital invested .. .. .	6,070	5,122	—	6,318	3,339	—	1,821	4,198	—

TABLE IV—continued  
Average Results for 1950  
Specialist Farms

	Fruit farms			Hop farms			Market gardens		
No. of farms .. .. .	8			15			9		
Average acreage (total) .. ..	124.7			197.5			43.8		
Average acreage (adjusted) .. ..	118.5			189.2			43.3		
	Per farm	Per 100 acres (adjusted)	Per cent.	Per farm	Per 100 acres (adjusted)	Per cent.	Per farm	Per 100 acres (adjusted)	Per cent.
REVENUE									
Livestock output:	£	£		£	£		£	£	
Cattle .. .. .	268	226	3.0	389	205	3.4	64	148	1.7
Sheep .. .. .	370	312	4.2	177	94	1.6	13	30	0.3
Pigs .. .. .	256	216	2.9	698	369	6.2	442	1,018	11.6
Poultry and eggs .. .. .	57	49	0.6	138	73	1.2	113	262	3.0
TOTAL .. .. .	951	803	10.7	1,402	741	12.4	632	1,458	16.6
Milk .. .. .	434	366	4.9	984	520	8.7	—	—	—
Crops, other than fruit and hops .. ..	1,105	932	12.4	1,962	1,037	17.3	2,895	6,671	76.2
Fruit .. .. .	6,175	5,211	69.7	1,575	832	13.9	215	495	5.7
Hops .. .. .	—	—	—	5,074	2,681	44.8	—	—	—
Sundries .. .. .	169	142	1.9	259	136	2.3	48	113	1.3
Government grants .. .. .	36	31	0.4	66	35	0.6	9	20	0.2
TOTAL REVENUE .. .. .	8,870	7,485	100.0	11,322	5,982	100.0	3,799	8,757	100.0
PROFIT: Realized .. .. .	1,300	1,097	—	1,324	700	—	(-)121	(-)280	—
Unrealized .. .. .	358	302	—	401	243	—	174	403	—
TOTAL .. .. .	1,658	1,399	—	1,785	943	—	53	123	—
Revenue per £100 labour .. .. .	274	—	—	249	—	—	227	—	—
Cost of new machinery and implements .. ..	860	726	—	677	358	—	210	484	—
Sales of machinery and implements .. ..	164	139	—	100	53	—	48	111	—
No. of farms showing a profit .. .. .	5	—	—	12	—	—	4	—	—
No. of farms showing a loss .. .. .	3	—	—	3	—	—	5	—	—

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