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The Recession in Farm Profits in South-East England

By
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DEPARTMENT OF AGRICULTURAL ECONOMICS
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THE RECESSION IN FARM PROFITS IN SOUTH EAST ENGLAND

A study of success and failure in the business of farming in Kent, Surrey and Sussex since 1955

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FOREWORD

THIS short report deals with the fortunes of those who have elected to farm in the South-East corner of England. It is concerned with a group of people who are primarily farming for a living and not as a pleasant part-time occupation. Though it deals with their swaying fortunes at the present time, the comments and tables link on to information given in earlier reports in this series so that a continuous historical account is available of farm profits and problems in this part of England.

We are very grateful to the band of selected farmers who continue to allow us to come on to their farms and into their homes and who, out of interest and kindness, make available for study their private business records.

Mr. J. D. Sykes has been responsible for the organisation of the survey and for the preparation of this report. Messrs. J. H. Hooper and K. L. Oake have made the majority of the farm visits to collect individual farm records, with other members of the Department providing considerable help, especially in the analysis of the large amount of information received.

G. P. WIBBERLEY,

Reader and Head of Department.

SUMMARY

FARM profits in South-East England showed a marked downswing in 1956-57 in contrast with the rise general throughout the country. Profits per acre on an identical group of farms averaged £3 12s. 0d. as compared with £5 18s. 0d. in 1955-56. One farm in five showed a loss as compared with one farm in twelve in the previous year.

The 1955-56 farming year was a good one for farmers in the South-Eastern Counties with record levels of profit on many types and sizes of farm. In the following year, substantially reduced milk prices and a poor cropping year combined to pull down profits. On a group of arable farms, for example, profits averaged only one third of those for the previous year. Small farmers, too, experienced severe setbacks. Compared with their neighbours on larger farms they were involved in relatively greater increased expenses, particularly for purchased feeding stuffs, yet they could not achieve the same increase in production. Profits averaged £1 6s. 0d. per acre on a group of farms with less than one hundred acres. This was less than one fifth of the level of profits in 1955-56. On farms above a hundred acres, however, profits were reduced by no more than one eighth and averaged £4 18s. 0d. per acre.

For the 1957-58 farming year farm profits should be about one third higher than the previous year, judging from results analysed to date. Higher levels of production from fat and store cattle and sheep appear to be balancing reduced receipts from milk, poultry and pigs. Crop output is also higher. On the expense side, farmers currently appear to be spending rather less on feedingstuffs and labour, but fertiliser and machinery expenses are still rising and there is a noticeable upward trend in rents.

The prospects for 1958-59, viewed in the light of the 1958 Farm Price Review, should be quite good for many farms if efficiency continues to improve at the high rates recorded over the last two or three years. For the small farmer, however, the outlook is not so bright. Both the scale of his business activities and his dependence upon milk, eggs and bacon production leave him vulnerable to changing economic circumstances, as the 1956-57 results indicate. Although promises of special assistance have been made to these producers, their problem is a fundamental one deserving more study and a basic long-term approach. Some tentative suggestions are made on pages 15 & 16.

GENERAL AGRICULTURAL POLICY

In announcing reduced prices for certain farm products, the Government's White Paper, " Annual Review and Determination of Guarantees, 1958," draws attention once more to levels of farm profitability and to trends in production and costs. Reasons are given for the new policies. The White Paper states that " the national economic situation, the Exchequer liability, the commodity considerations and international relations, especially with the Commonwealth, all require a substantial reduction in the level of guarantees." The document goes on, however, to maintain that the reductions will not be inconsistent, " with the maintenance of a proper level of remuneration for the industry " and estimates that the net income of the half a million farmers in the United Kingdom will rise from £314 m. in 1956-7 to £360 m. in 1957-58.

Most of the price cuts will affect more severely the small farmer, producing milk, eggs and bacon, than the large farmer who almost invariably enjoys a wider range of farming opportunities. For the small farmers, many of whom already earn relatively low incomes, the cut in prices will be a heavy burden. The Government is aware of this and acknowledges it in the White Paper and in promises made to give them special assistance. Devising the most desirable form of help will by no means be an easy task owing to the range of interests involved, not the least of which are the complex pattern of small scale farming and the lack of factual data on many of its aspects.

Fluctuations in Farmers' Incomes

For a good number of years successive Governments have pledged themselves to underwrite the farming industry against the effects of " changes which are not within the control of agricultural producers." However, no Government has ever set out to guarantee an income for any individual farmer or group of farmers. The object has rather been to provide opportunities for farmers to earn reasonable incomes through their own exertions. This attempt has not been wholly successful owing to conflicting aims of policy. It has in fact proved to be much more difficult to achieve a reasonable living on certain types and sizes of farms than on others. Although the pattern of the distribution of the total net income of the farming industry is of considerable importance and interest, it has received rather too little attention in past studies. Profits vary widely from farm to farm depending upon the exertion and ability of the farmer and upon the extent to which capital, land and labour are at his disposal. Important and considerable variations also occur from district to district depending upon the size and type of farms that predominate. The effect of local differences in respect of soils, weather conditions, market opportunities and the like are factors which are not sufficiently appreciated by many commentators on farming affairs.

The Farming Situation in South-East England

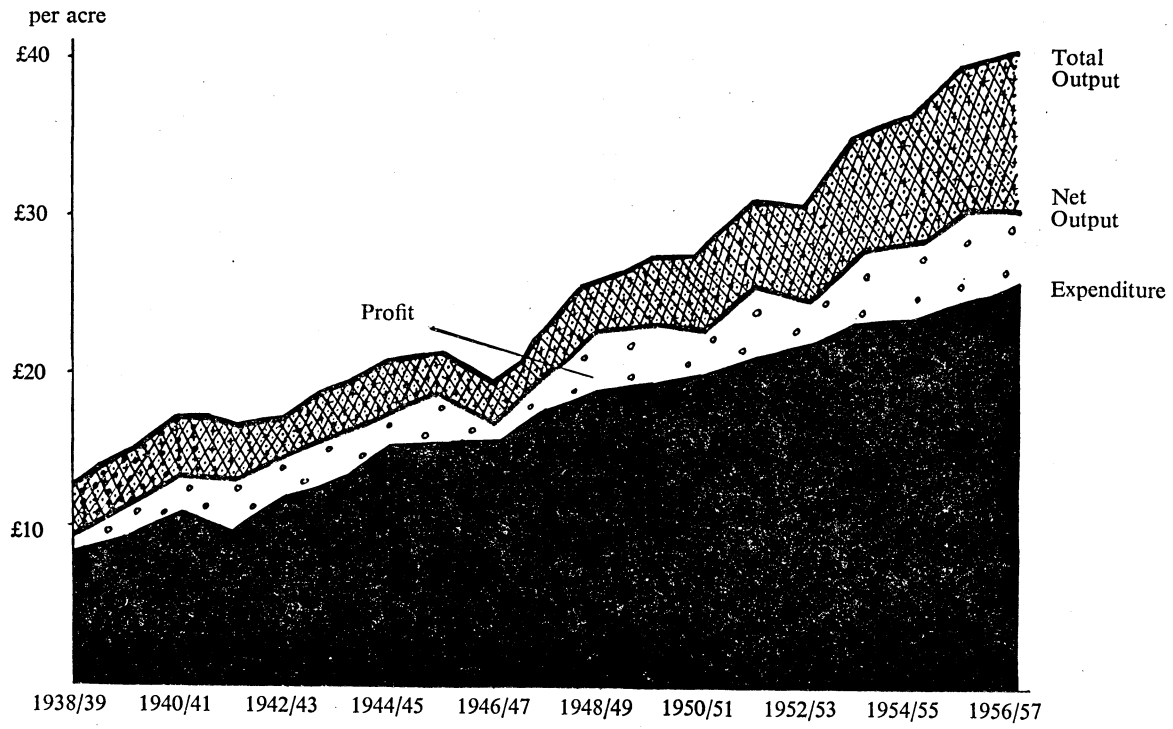
Regional differences in farm profitability are important for it is quite possible for the net income of farmers as a whole to be increasing at the same time as certain districts experience trends in the opposite direction, and even relative depression. There is evidence available to show that such a downward trend occurred in South-East England during 1956-57. Locally, farm profits were very substantially reduced although they were increasing for the country as a whole.

Some light is thrown on the situation in the South-East by a continuing survey of farm financial accounts undertaken by the Agricultural Economics Department of Wye College. An identical sample of nearly 170 farms scattered throughout the counties of Kent, Surrey and Sussex has been studied for the 1955-56 and 1956-57 farming years to discover what changes have been occurring in profitability and in the associated levels of output* and costs.

* A list of definitions is given on page 28.

Fig. 1

Trends in Farm Profitability, Output & Expenditure in South-East England, 1938–39 to 1956–57.



Despite the decline in the value of money and the changing sample of farms, the above diagram, based on Appendix Table A, throws light on several important features of farm production over a period of nearly twenty years. The trend of output and Expenditure has continued upward throughout with but relatively minor setbacks, except for the extremely difficult conditions experienced in 1946-47. This date roughly marks the beginning of the remarkable post-war growth of Total Output which has increased at a relatively greater rate than either New Output or Expenditure. Much of this expansion has been due to considerablly greater purchases of feedingstuffs, as largely indicated by the area of cross hatching. Purchased feeding stuffs and seeds recently have amounted to almost one quarter of the value of Total Output, a situation almost identical with that of twenty years ago. During the height of the war, however, such items represented between one sixth and one seventh of the value of Total Ouput

The space between the lower edge of the cross hatching and the area of solid black represents Farm Profit. Although there has been a trend towards higher profits per acre, proportionate to the level of Total Output there has been little real change. In 1955-56 and 1956-57, for example, Profits amounted to nearly one eighth of the value of Total Output, as they did during 1939-40 ad 1940-41. But higher profits have been earned during the intervening period.

Costs are indicated on the diagram by the area of solid black. Although the steady upward trend of the total is obvious the diagram does not reveal the increasing importance of items such as power and machinery expenses relative to labour and rent.

Results are also available from 80 farms reporting for 1957-58 and which give some indication of current trends when compared with their performance during the two preceding years.

Compared with the 1955-56 year the results for the main sample show that a heavy setback was experienced in farm profitability in 1956-57. In fact, practically one quarter of the farms surveyed showed losses after making a charge for the manual labour of the farmer and his wife but before debiting payments of interest. (Table 1). In addition, on those farms showing a profit, well over one third made less than £500.

Table 1. PROFITS & LOSSES ON FARMS IN SOUTH-EAST ENGLAND.

For each 100 farms profits and losses were distributed as follows :—

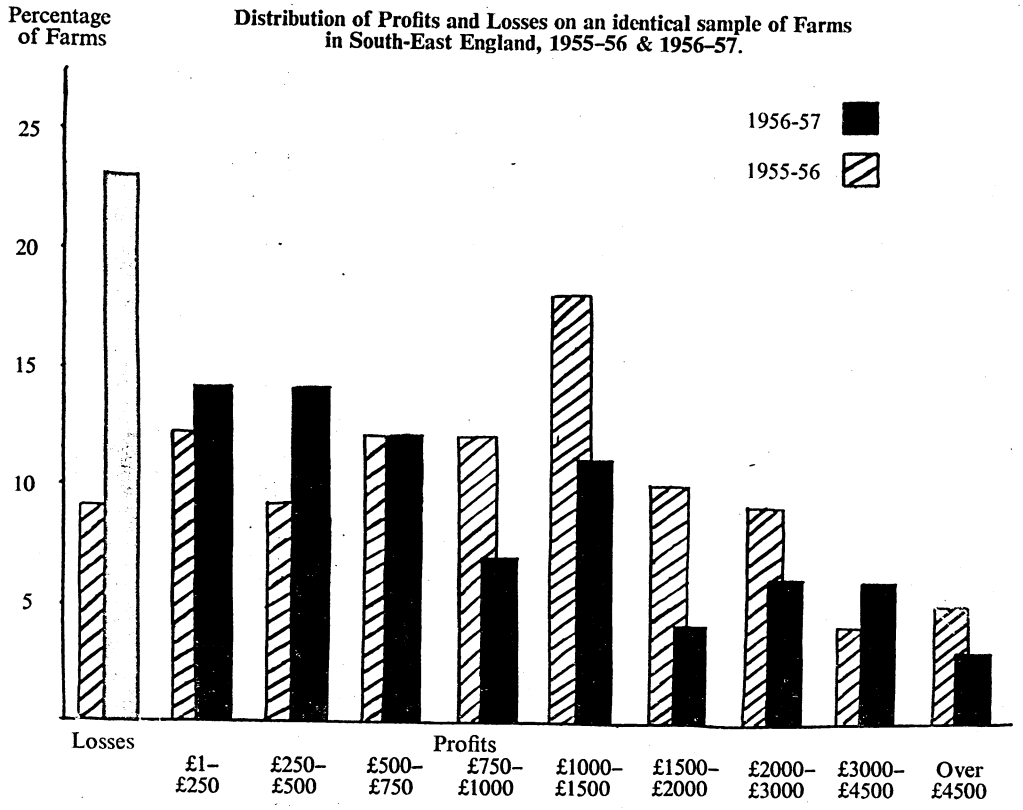
		1955-56	1956-57
Profits	Over £3,000	9	9
	£1,500—£3,000	19	10
	£500—£1,499	42	30
	Under £500	21	28
Losses	... ...	9	23

Although setbacks undoubtedly occurred elsewhere in Britain there can be few districts which show much worse results. As a general average, profits during 1956-57 declined to about two-fifths of the 1955-56 level, £3 11s. 0d. per acre as compared with £5 17s. 0d. Undoubtedly, so far as the south-eastern counties were concerned, 1955-56 was a year of high farm profits, though not abnormally so as judged from the long-run relationship of profit to output. (See Table A, Appendix). The low levels of farm profitability general in much of the South-East have been commented upon previously. In a study* concerned with the results of the 1952, 1953 and 1954 farming years, it was pointed out that for seven of the ten years after 1944, dairy farm profits averaged less than one half of those on similar farms elsewhere in the country. Such poor results, which continue to be recorded, are not the outcome of any one single influence. They are, in part, the consequence of the extensive areas of poorish farming land, typified by much of the North Downs and the Weald of Kent and Sussex. The climate, too, is a factor limiting economic production on many types of farm, chiefly owing to the threat of summer drought. The mixed farming systems, related to such influences, are not particularly efficient under modern conditions and high cost production is the consequence, especially on the smaller farms. Throughout most of the province owner occupation is important and under certain circumstances the funds available for investment in farming activities proper may be severely limited. A farm which has cost its owner a considerable sum does not, in this region, necessarily indicate fertile land or adequate and convenient buildings. More often it relates to nearness to a railway station or a pleasant situation.

There is much indeed to please the eye of the traveller passing through the farm lands of the South-East. This is especially so where beyond the Downs he finds hop-gardens, oast houses and orchards, heavy-yielding cornfields or lush pastures trim with grazing flocks. Clearly, these areas, whether in the hops and fruit belts, in Thanet, in Romney Marsh or elsewhere, strike one with their tidiness, their neat hedgerows and well-kept farmsteads and an air of quiet prosperity. These scenes are, however, by no means universal. The Wealden Plain, for example, has never enjoyed much prosperity over its comparatively short farming history. Hall and Russell in 1910 wrote—" the Weald was never highly farmed and has always been regarded as a poor, backward, unimproved land, the more so by contrast with the highly cultivated land and alluvial soils close at hand." The acres of permanent grass, the yellow clay furrows and the many small farms should not delude anyone into supposing that this was an area of rural prosperity.

* Profits & Problems of Farming in South-East England, by J. D. Sykes & G. P. Wibberley. Wye College (University of London) 1956.

Fig 2



The 1955-56 farming year was a good one generally through the South-East with profits averaging £5 17s. 0d. per acre on a sample of 167 farms. On the same farms in the following year, however, profits averaged only £3 11s. 0d. per acre as a result of declining prices for milk, eggs and pigs and indifferent crop yields.

The distribution of farm profits and losses changed appreciably, most noticeable of all being the considerable increase in losses. Less than one farm in ten showed a loss in 1955-56, as compared with nearly two and a half times that number in 1956-57. A major set-back occurred on the small farms where nearly one out of every two showed a loss and only two farmers out of every hundred had a profit greater than £1,000. Owing to the difficult spring and the poor harvest, arable farms too, showed unsatisfactory earnings with farmers' incomes averaging only one third of the 1955-56 level.

It was the small farms, such as those typical of the Weald, which were mostly affected by the recession in farm profitability during 1956-57. The preceding year undoubtedly had been relatively prosperous. In fact, for the whole sample of farms the rate of profit per acre was the highest over the twenty years for which records are available (see Table A, Appendix). Yet relative to levels of output and costs, such profit levels cannot be regarded as abnormally high ; they appear such only because the long run average in profitability is low.

Profits and Size of Farm

The effects of the poor farming conditions experienced during 1956-57 can be illustrated by the results of farms of below one hundred acres in extent. No less than forty-nine farms out of every hundred of this size showed a loss as compared with thirteen per hundred in the previous year. On farms with less than one hundred acres, profits averaged only one sixth of those obtained during 1955-56 ; on farms above this size profits generally were reduced by little more than one eighth. (See Table 2).

Table 2. The Decline in Profitability on Farms of Different Size.

Size of Farm	*Average Profit per Acre*	
	1955-56	1956-57
Acres	£ s. d.	£ s. d.
Under 50	7 4 0	1 5 0
50—99	5 15 0	1 0 0
100—149	6 3 0	4 17 0
150—299	4 13 0	5 16 0
300 & above	6 13 0	5 17 0

Many factors were responsible for the reductions, but the most important were the fall in milk prices and the poor year for crops. For example, the value of crop production was one fifth less than in 1955-56. This latter factor was mainly responsible for reducing profits on arable farms so that they fell to a level two-thirds below that for the earlier year.

During 1956-57 the small farmer generally experienced a more severe fall in crop production than his neighbour on the larger farm and, also, despite a relatively greater increase in feedingstuffs purchases, the rise in livestock production was smaller (Table 3).

Table 3. Production, Costs & Profits on Large and Small Farms.

For each £100 in 1955-56 there was in 1956-57 :—

	On Farms under 100 acres	*On Farms over 100 acres*
	£	£
Production		
Livestock	103	107
Crops	74	88
Total	96	101
Costs		
Feedingstuffs Purchases	109	103
Total	104	103
Profit	17	88

On the larger farms, however, it was possible to expand livestock production to a considerable extent and with a relatively smaller increase in the purchase of feedingstuffs. Total expenditure rose less and there was no decline in the total value of farm production. The consequence for the large farmer in 1956-57 was a reduction in profit averaging little more than one eighth of the previous year's level ; on the small farms, however, profits were reduced by more than four-fifths (Table 3).

Such results indicate the economic weakness of the small farm during periods of stress. Indeed, it requires only a few hard blows of this kind to make a grave situation desperate. The small farm generally is highly vulnerable, measured in terms of economic efficiency. This is not to say that there is a real danger of the small farmer disappearing. He is far too tenacious for that to happen under present conditions. The probability is rather that a poor class will tend to develope in the rural community, living and working under miserable conditions and exploiting the land and its capital, their families and themselves.

At the present time most of the odds are set against the small man. His chief economic problems are essentially those arising from too small a business, rather than from too small an acreage. They are the consequence of inadequate capital investment, poor yields from livestock and crops, difficulties of mechanisation and labour use and sheer lack of technical " know-how." The latter factor alone is responsible for an ever widening gulf between the ranks of the large and small farmers.

The Influence of Farming System.

The problem of earning power and profitability in farming is linked as closely with system of farming as it is with scale of production. Although size of turnover is a factor of great significance in determining costs and returns the composition of that turnover is likewise important. In other words, the relative degree of dependence upon dairy, or sheep, or pig, or sale crop enterprises, etc., is one of the major determinants of farming income.

Table 4. Changes in Profitability on Farms of Different Type.

For each £100 of profit in 1955-56 there was in 1956-57 :—

On Arable Farms	*On Livestock Farms*	*On Dairy Farms*	*On All Farms*
£34	£79	£72	£61

Profits were considerably reduced during 1956-57 on all types of farm with the severest setbacks generally occurring on arable farms (Table 4). Although lower prices for milk tended to reduce the incomes of dairy farmers appreciably this was offset to some extent by the larger gallonages of milk sold. Other revenue from livestock also expanded through the keeping of increased numbers of pigs, poultry, cattle and sheep. These trends towards larger volumes of output of livestock and livestock products continue a movement previously noted in the 1952-53, 1953-54 and 1954-55 farming years. An indication of the strength of this movement can be judged from Table B, Appendix. To a large extent, the expansion in livestock production has been linked with increased purchases of feedingstuffs but there are signs that the latter are being used more carefully than for many years. Data in the possession of the Department indicates, for example, that a reduction of between one quarter and one fifth occurred in the feeding of purchased concentrates to cows during 1956-57.

Farm Expenses have, in general, shown an upward trend (Table 5). During 1956-57, for example, purchases of feedingstuffs were seven per cent. greater in value, on average, than in the previous year ; labour costs also rose but to a somewhat smaller extent.

Table 5. CHANGES IN PRODUCTION & COSTS.

For each £100 worth of production or expenditure in 1955-56, there was in 1956-57 :—

	On Arable Farms	*On Livestock Farms*	*On Dairy Farms*
	£	£	£
Production			
Livestock	99	102	108
Crops	82	88	81
Costs			
Feedingstuffs Purchases ...	96	110	108
Hired Labour	97	91	106

THE RETURN ON FARMING CAPITAL.

Farm performance cannot be measured adequately merely in terms of costs or profits per acre. Account has also to be taken of returns on capital and labour. Indeed, on many small farms, owing to the extensive use of purchased feedingstuffs, acreage has little meaning. The availability of tenant's and landlord's capital, the return which can be earned with the former, the amount of rent and the annual cost of improvements are matters of increasing significance to many farmers. Much of the increase in production occurring during 1956-57 was a result of farmers extending their investment, particularly in more cattle, sheep, pigs and poultry and machinery, as well as through greater purchases of feeding stuffs and fertilisers. Evidence as to the returns on this capital is given in Table 6.

Table 6. THE RETURN ON TENANT'S FARMING CAPITAL.

For each £100 Tenant's Capital there was a Profit amounting to :—

	1955-56	1956-57
	£ s. d.	£ s. d.
Arable Farms	26 10 0	9 4 0
Livestock Farms	7 14 0	5 10 0
Dairy Farms	13 16 0	9 4 0

Arable farms, generally, have shown the highest return on tenant's capital for a good number of years. Despite the severe setback encountered during 1956-57—a reduction in profitability of two-thirds—they continue to show comparatively good returns.

With regard to small farms, profits per £100 tenant's capital were severely reduced, declining from £14 6s. 0d. in 1955-56 to £2 8s. 0d. in the following year on farms with less than one hundred acres.

Measures of Farming Efficiency

From the economic standpoint it is desirable to know whether the production of a farm or group of farms is increasing because more resources are being employed or because existing resources are being used more effectively. Figures contained in Tables F, G and H (Appendix) throw light upon this matter as well as upon the comparative economic strengths and weaknesses of farms of different size and type.

These tables show the tendency for more resources to be used for productive purposes and for farming systems to increase in revenue producing capacity. This factor, as measured by the System Index*, rose by nearly four per cent. on average between 1955-56 and 1956-57, but by twice that amount on farms of fifty acres and below. The System Index shows considerable variation according to size and type of farm. For example, the smallest farms had a potential turnover nearly two and a quarter times greater per acre than those with more than 300 acres. Similarly, milk-selling farms with pigs and poultry as major enterprises were much more intensive than those dairy farms where arable sale crops predominated.

Apart from intensity of system levels of yield are of predominant economic importance. The indices of yield* reflect the extent to which all the farming resources together are being used efficiently. The indices are prepared by taking into account the physical yields of all crops and livestock as well as prices realized ' at the farmgate.' The nature of the 1956-57 farming year was such that, for the total sample of farms, there was no change in economic yield overall as compared with the preceding year. Thus much of the increase in total production which did occur was due to the employment of additional resources rather than to much greater efficiency in production. In point of fact, however, the increase in output from livestock was almost sufficient on average to offset reduced production from crops. Experiences varied, of course, from farm to farm depending upon factors such as type of farming practised and the size of holding. However, overall levels of yield were reduced on all sizes of farm apart from those with between one hundred and fifty and three hundred acres (Table F, Appendix). Very heavy setbacks were experienced on arable farms where the yield index shows a fall on average from 103 in 1955-56 to 88 in the following year.

The comparatively poor economic performance of the small farms is without doubt one of the most important features shown by the efficiency standards. Although they possess the advantage of higher than average rates of turnover of capital this is offset by yields inferior to those on large farms. The picture is somewhat complex. Milk yields per cow are low, so too are yields from other livestock. Indifferent crop yields on many small farms are a further factor depressing the yield index for the farm as a whole.

The Feed Economy of the small farms also shows up unfavourably on average with a feed crop area greater than normal required to support each livestock unit. Despite the greater intensity of production the levels of output obtained from livestock and crops are generally insufficient to compensate for the higher incidence of costs.

The costs of labour and mechanisation provide a useful example of the latter problem. In 1955-56 and 1956-57, on farms with less than one hundred acres, these items absorbed over £65 out of each £100 worth of Net Output produced. Thus a margin of only £35 was available to pay for fertilizers, rent and rates, miscellaneous items *and profit*. On farms above one hundred and fifty acres this margin was more than £10 greater on average.

Table 7. Power & Machinery Costs on Farms of Different Size. South-East England, 1956-57

Size of Farm	50 acres & under	51-100 acres	101-150 acres	151-300 acres	Over 300 acres
Power & Machinery Costs per 100 Tractor Work Units*	£67.1	£63.9	£54.2	£53.4	£47.9

Much of the greater expense is due to relatively heavier power and machinery costs which result from the difficulty of mechanizing small mixed farms. Relative to estimated work requirements power and machinery costs were considerably greater on farms with less than one hundred acres than on those above that size (Table 7).

* For definitions see page 28.

Current Trends.

At the present time farmers in South-East England are busy recovering some of the income lost during the 1956-57 farming year. The prospects for many of the small farms do not appear particularly bright as a consequence of the 1958 Farm Price Review but judging from results analysed to date there is an upward trend in progress. Details are available for eighty farms for the 1957-58 year which may be compared with results obtained during the two preceding farming years. Profits have improved by about one third, rising from £4 2s. 5d. per acre in 1956-57 to £5 11s. 0d. in 1957-58. Figures given in detail in Table F (Appendix) show that there has been an expansion in output, due to higher returns from cattle, sheep and crops which more than offset the decline in sales of milk, pigs and eggs. Increased spending on fertilisers, rent, power and machinery and miscellaneous items has been offset somewhat by a reduced outlay on feedingstuffs and labour.

The trend towards more cows and more milk per cow continues. Over the three years 1955-56 to 1957-58, as Table K (Appendix) shows, average milk yield per cow per year rose from 757 gallons to 808 gallons, an increase practically sufficient to maintain the value of milk sales per cow at the 1955-56 level, *i.e.*, £122.

Increased numbers of all kinds of livestock have been kept and this movement has been associated with improved efficiency in the use of home-grown and purchased feeding stuffs. Indeed, the improvement has been sufficient to maintain both the value of milk sales and livestock output per adjusted feed acre* at levels above those of the 1955-56 farming year. For example, milk sales per adjusted feed acre of £40 16s. 0d. in 1955-56 may be compared with £43 18s. 0d. in 1957-58 and livestock output per adjusted feed acre at £27 16s.0d. and £28 16s. 0d. respectively.

The Small Farm and the Future.

In the past the annual Farm Price Reviews have been used chiefly to influence the supply of certain farm products coming on to the market and to determine the total income of the farming industry, rather than to control the distribution of that income. Owing to criticisms which have been made regarding the distribution of farm incomes and the difficulties obviously experienced by many small farmers, much greater attention may be paid to this matter in future. In formulating any new policy there will be many problems, not the least of which is a deficiency of statistical data regarding the business structure of the farming industry. Any new policy will only be desirable if it aims at encouraging a pattern of farming consisting of well balanced economic units, whether they be large or small, part-time or full-time. The policy certainly should not be aimed at merely preserving the status quo. There is now a fair amount of knowledge of the types and sizes of farms which do provide reasonable incomes ; the main difficulty lies in finding ways to encourage their development. A report, shortly to be issued by this Department†, will deal with some of the ways in which individual small farmers have been able to improve their position in recent years.

It is inevitable, sooner or later, that some reorganization of the size structure of our farms will come about. Even with the high levels of national agricultural price supports the small farm with really adequate profits is the exception rather than the rule and the inescapable conclusion must be that at present there are too many farmers. It is well over a century since the present size pattern and layouts of our farms were stabilized and no matter what technical innovations are available there are many farmers who cannot hope to make an adequate *full-time* living from their farms.

The problem is to lay down a long-term policy, not designed to compel landowners and farmers to amalgamate holdings but to provide the strongest economic incentives for this. That is not to say, however, that the policies which have been followed in other European countries, in particular in Sweden, should not be studied critically for the lessons we can

* For definitions see page 28.

† The Small Farm on Heavy Land, by Ian G. Reid. Wye College (University of London). To be published in July, 1958.

learn. There are various ways by which an amalgamation movement could be encouraged. One important step in agricultural policy would be to remove all possible hindrances to natural tendencies towards amalgamation. In particular, the community should watch carefully the investment of capital in buildings and fixed equipment, such as through the farm improvement grants, and discourage development on those holdings which are likely to be hopelessly uneconomic through the more competitive conditions likely to be experienced over the next twenty to thirty years.

A further obvious example is the provision of long-term credit facilities to assist those in a position to expand the area of their farming activities. The cost of such a policy need not be great. Even if no more than one hundredth part of the present farm subsidies were devoted annually to this end it would serve to underwrite the provision of a considerable amount of credit. Furthermore, there would be compensatory benefits which would far outweigh the direct cost to the government. Such savings would arise if there were fewer small scale producers, whose production naturally centres around the processing of imported feedingstuffs, for there would be some subsequent stabilization of eggs, bacon and milk production. The importance of changes in the character of agricultural production with fewer small ' full-time ' farms should not be underestimated despite the absence of detailed official statistics of sources of production. Sufficient evidence has been collected by University Departments of Agricultural Economics to show how the patterns of production change with increasing size of farm.* An upward trend in the size structure of our farms would lead almost automatically to relatively greater supplies of beef, mutton and arable crops at the expense of relatively smaller supplies of milk, eggs and bacon. Such a change, therefore, would make a useful contribution towards improving the ' surplus ' situation with regard to certain farm commodities and it would also serve towards permanently raising the levels of income of those farmers remaining in the industry.

This outline of the state of farming in South-East England throws into relief two important items. In the first place, national trends in farm profitability and production may be at variance with regional trends, as was the case in Kent, Surrey and Sussex during the 1955-56 and 1956-57 farming years. Secondly, the small farmer's struggle for a living continues. After the near catastrophe of the 1956-57 farming year he faces the challenge of reduced prices for products in relative over-production with considerable apprehension.

* In particular see—Large and Small Scale Farming in England and Wales by A. J. Wynne. Journal of Agricultural Economics, Vol. XI, No. 1.

APPENDIX

TABLE A.

FINANCIAL RESULTS ON GENERAL MIXED FARMS IN SOUTH-EAST ENGLAND, 1938-39 TO 1956-57.

	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57
No. Farms	60	81	55	105	138	185	193	183	179	164	168	171	166	161	172	176	170	173	173
Average Size—Acres ...	237	202	243	222	211	173	196	215	228	233	253	258	227	230	206	208	205	199	198
RESULTS PER 100 ACRES																			
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Total Output	1,298	1,473	1,720	1,619	1,692	1,856	2,013	2,105	1,903	2,253	2,550	2,687	2,744	3,058	3,059	3,472	3,642	3,940	4,020
Net Output	952	1,132	1,313	1,301	1,426	1,596	1,724	1,806	1,634	1,932	2,207	2,267	2,257	2,489	2,427	2,718	2,794	2,976	2,989
Expenditure	854	957	1,113	983	1,160	1,305	1,519	1,535	1,562	1,721	1,866	1,925	1,980	2,055	2,140	2,289	2,302	2,449	2,533
Profit or Management & Investment Income ...	98	175	200	318	266	291	205	271	72	211	341	342	277	434	287	429	492	527	456
Profit as a percentage of Total Output	7.5	11.9	11.6	19.6	15.7	15.7	10.3	12.9	3.8	9.4	13.3	12.7	10.1	14.2	9.4	12.4	13.5	13.4	11.3

For definitions see page 28.

TABLE B

FINANCIAL RESULTS ON FARMS OF DIFFERENT SIZE IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES FOR 1955-56 & 1956-57.

Size of Farm	*50 acres & under*		*51—100 acres.*		*101—150 acres.*		*151—300 acres.*		*Over 300 acres.*		*All Farms*	
No. Farms	16		39		37		48		22		167	
	RESULTS PER 100 ACRES.											
	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £
OUTPUT												
Cattle	289	388	373	366	300	327	357	359	332	345	338	355
Sheep & Wool ...	45	43	112	155	175	193	286	275	187	209	180	193
Pigs	1,685	1,519	750	651	379	396	315	265	238	282	573	524
Poultry & Eggs ...	929	1,447	724	764	448	577	278	300	113	126	453	549
Milk	3,425	3,401	2,139	2,190	1,842	2,000	1,487	1,595	1,299	1,335	1,874	1,963
Total Livestock ...	6,373	6,798	4,098	4,126	3,144	3,493	2,723	2,794	2,169	2,297	3,418	3,584
Crops	2,455	1,967	1,357	937	1,323	1,038	1,360	1,251	1,585	1,520	1,522	1,250
Miscellaneous ...	251	325	232	282	171	200	204	209	161	205	201	238
TOTAL OUTPUT ...	**9,079**	**9,090**	**5,687**	**5,345**	**4,638**	**4,731**	**4,287**	**4,254**	**3,915**	**4,022**	**5,141**	**5,072**
Less Purchased Feed	3,050	3,443	1,676	1,780	1,108	1,182	886	874	631	679	1,297	1,383
„ „ Seed	209	208	162	150	146	131	153	132	161	156	160	148
NET OUTPUT ...	**5,820**	**5,439**	**3,849**	**3,415**	**3,384**	**3,418**	**3,248**	**3,248**	**3,123**	**3,187**	**3,684**	**3,541**
EXPENDITURE												
Fertilisers ...	303	281	262	256	242	249	277	302	270	270	267	272
Rent & Rates ...	380	424	279	293	232	251	233	247	198	208	255	272
Power & Machinery	991	1,039	823	821	660	641	664	693	595	615	724	737
Labour—paid and unpaid ...	2,842	2,866	1,466	1,500	1,256	1,285	1,238	1,258	1,124	1,195	1,451	1,480
Miscellaneous ...	585	702	445	445	378	409	371	371	269	312	400	423
TOTAL EXPENDITURE ...	**5,101**	**5,312**	**3,275**	**3,315**	**2,770**	**2,835**	**2,783**	**2,871**	**2,456**	**2,600**	**3,097**	**3,184**
PROFIT OR MANAGEMENT & INVESTMENT INCOME ...	**719**	**127**	**574**	**100**	**614**	**583**	**465**	**377**	**667**	**587**	**587**	**357**

TABLE C.

FINANCIAL RESULTS ON MILK-SELLING FARMS IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES FOR 1955-56 & 1956-57.

Type of of Farm :	*Predominantly Milk*		*Milk with Pigs & Poultry*		*Milk with Considerable Arable*		*Milk with Mixed Livestock & Crops*		*All Milk—Selling Farms*	
No. Farms :	22		38		32		27		119	
	RESULTS PER 100 ACRES									
	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £
OUTPUT										
Cattle	393	382	387	461	398	358	358	355	385	395
Sheep & Wool ...	14	22	14	33	49	42	243	254	75	84
Pigs	41	11	1,411	1,246	48	74	275	250	534	477
Poultry & Eggs ...	140	126	1,006	1,335	64	75	278	277	427	532
Milk	3,236	3,447	3,504	3,696	1,859	1,919	1,677	1,859	2,597	2,755
Total Livestock ...	3,824	3,988	6,322	6,771	2,418	2,468	2,831	2,995	4,018	4,243
Crops	352	110	346	177	1,696	1,581	763	668	805	654
Miscellaneous ...	210	234	238	285	177	208	185	190	204	233
TOTAL OUTPUT ...	**4,386**	**4,332**	**6,906**	**7,233**	**4,291**	**4,257**	**3,779**	**3,853**	**5,027**	**5,130**
Less purchased feed ...	1,118	1,180	2,869	3,144	637	640	807	871	1,477	1,592
„ „ seed ...	107	99	131	121	194	170	125	106	142	127
NET OUTPUT ...	**3,161**	**3,053**	**3,906**	**3,968**	**3,460**	**3,447**	**2,847**	**2,876**	**3,408**	**3,411**
EXPENDITURE										
Fertilisers	219	203	245	268	315	319	212	228	251	261
Rent & Rates ...	276	301	305	329	216	224	215	234	256	274
Power & Machinery ...	611	613	830	863	704	725	603	625	704	725
Labour-paid & unpaid	1,283	1,360	1,529	1,623	1,267	1,292	1,160	1,169	1,330	1,382
Miscellaneous ...	351	376	454	511	320	339	278	305	358	394
TOTAL EXPENDITURE	**2,740**	**2,853**	**3,363**	**3,594**	**2,822**	**2,899**	**2,468**	**2,561**	**2,899**	**3,036**
PROFIT or MANAGEMENT & INVESTMENT INCOME	**421**	**200**	**543**	**374**	**638**	**548**	**379**	**315**	**509**	**375**

TABLE D.

FINANCIAL RESULTS ON NON-MILK-SELLING LIVESTOCK FARMS IN SOUTH-EAST ENGLAND.
IDENTICAL SAMPLES, 1955-56 & 1956-57.

Type of Farm :	*Mainly Pigs & Poultry*		*Mainly Sheep & Cattle*		*All Livestock Farms*	
No. Farms :	10		14		24	
	RESULTS PER 100 ACRES					
	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £
OUTPUT						
Cattle	321	225	326	420	331	339
Sheep & Wool	425	457	789	815	666	666
Pigs	556	614	125	114	290	322
Poultry & Eggs	1,132	1,068	342	368	650	659
Total Livestock	2,434	2,364	1,582	1,717	1,937	1,986
Crops	1,151	964	749	695	916	807
Miscellaneous	195	291	124	180	144	227
TOTAL OUTPUT	**3,780**	**3,619**	**2,455**	**2,592**	**2,997**	**3,020**
Less Purchased Feed	1,042	1,117	443	503	693	759
„ „ Seed	140	166	88	99	99	127
NET OUTPUT	**2,598**	**2,336**	**1,924**	**1,990**	**2,205**	**2,134**
EXPENDITURE						
Fertilisers	202	161	113	127	150	141
Rent & Rates	179	190	221	222	203	209
Power & Machinery	746	755	434	421	564	559
Labour—paid & unpaid	937	940	764	730	836	818
Miscellaneous	304	285	202	213	244	243
TOTAL EXPENDITURE	**2,368**	**2,331**	**1,734**	**1,713**	**1,997**	**1,970**
PROFIT or MANAGEMENT & INVESTMENT INCOME	**230**	**5**	**190**	**277**	**208**	**164**

TABLE E.

FINANCIAL RESULTS ON NON-MILK SELLING ARABLE FARMS IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES 1955-56 & 1956-57.

Type of Farm :	*Arable with mainly Sheep & Cattle*		*Arable with mainly Pigs & Poultry*		*Arable with Hops & Fruit*		*All Arable Farms*	
No. Farms :	6		5		13		24	
	RESULTS PER 100 ACRES							
	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £	1955-56 £	1956-57 £
OUTPUT								
Cattle	150	195	129	210	138	157	139	177
Sheep & Wool	318	396	13	19	345	299	269	265
Pigs	37	30	272	327	1,862	1,616	1,075	951
Poultry & Eggs	24	25	275	322	694	824	439	520
Total Livestock...	529	646	689	878	3,039	2,896	1,922	1,913
Crops	2,902	2,722	3,906	2,437	7,657	6,391	5,687	4,650
Miscellaneous	160	177	265	264	296	320	234	272
TOTAL OUTPUT	**3,591**	**3,545**	**4,860**	**3,579**	**10,992**	**9,607**	**7,843**	**6,835**
Less purchased feed	97	76	172	167	1,749	1,692	1,008	970
„ „ seed	319	325	162	109	349	310	304	272
NET OUTPUT	**3,175**	**3,144**	**4,526**	**3,303**	**8,855**	**7,605**	**6,531**	**5,593**
EXPENDITURE								
Fertilisers	293	297	433	461	543	537	458	461
Rent & Rates	266	284	193	225	369	382	307	325
Power & Machinery	747	634	875	1,011	1,129	1,105	980	967
Labour	1,043	1,040	1,368	1,467	3,913	3,849	2,665	2,630
Miscellaneous	155	244	491	570	1,155	1,057	767	753
TOTAL EXPENDITURE ...	**2,504**	**2,499**	**3,360**	**3,734**	**7,109**	**6,930**	**5,177**	**5,136**
PROFIT or MANAGEMENT & INVESTMENT INCOME ...	**671**	**645**	**1,156**	**— 331**	**1,746**	**675**	**1,354**	**457**

TABLE F.

INDICATORS OF EFFICIENCY ON FARMS OF DIFFERENT SIZE IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES FOR 1955-56 & 1956-57.

Size of Farm :	50 *acres and under*		51—100 *acres*		101—150 *acres*		151—300 *acres*		*Over* 300 *acres*	
	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57
System Index	207	223	160	169	138	129	116	128	105	101
Yield Index	93	91	104	95	100	98	102	114	108	103
Yield Index for Livestock	88	88	95	95	90	94	93	97	97	94
Value of Output per Livestock Unit	£90.3	£89.1	£89.0	£89.4	£77.5	£79.0	£77.8	£78.8	£73.6	£69.7
Milk Yield per Cow (gals)	673	746	774	784	788	772	776	806	788	772
Milk Sales per Cow ...	£111	£119	£127	£126	£126	£122	£125	£128	£127	£124
Farm Feed Acres per Livestcok Unit	—	2.19	—	1.72	—	1.95	—	2.21	—	2.21
Adjusted Feed Acres per Livestock Unit ...	—	3.30	—	2.78	—	2.58	—	2.86	—	2.77
Livestock Output per Adjusted Feed Acre ...	—	£30.7	—	£32.7	—	£29.7	—	£29.1	—	£23.8
Labour & Machinery Costs per £100 Net Output ...	£62.7	£82.3	£62.6	£72.5	£55.8	£57.1	£53.2	£61.1	£49.3	£57.5
Power & Machinery Costs per 100 Tractor Work Units	—	£67.1	—	£63.9	—	£54.2	—	£53.4	—	£47.9

TABLE G.

INDICATORS OF EFFICIENCY ON MILK-SELLING FARMS IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES FOR 1955-56 & 1956-57.

Type of Farming :	*Predominantly Milk*		*Milk with Pigs and Poultry*		*Milk with Considerable Arable*		*Milk with mixed Crops and Livestock*	
	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57
System Index	112	118	194	207	112	110	112	115
Yield Index	112	105	103	103	114	104	98	124
Yield Index for Livestock	110	107	102	104	103	98	91	96
Value of Output per Livestock Unit	£98.4	£95.6	£104.6	£108.5	£84.6	£81.3	£76.4	£77.5
Milk Yield per Cow (Gallons) ...	836	831	768	771	774	756	705	731
Milk Sales per Cow	£135	£131	£126	£126	£124	£119	£112	£116
Farm Feed Acres per Livestock Unit	—	2.27	—	1.62	—	2.17	—	2.16
Adjusted Feed Acres per Livestock Unit	—	3.06	—	2.94	—	2.75	—	2.81
Livestock Output per Adjusted Feed Acre	—	£31.1	—	£37.0	—	£28.7	—	£28.3
Labour and Machinery Costs per £100 Net Output	£59.9	£66.2	£64.1	£64.6	£56.6	£59.7	£55.3	£64.5
Power and Machinery Costs per 100 Tractor Work Units	—	£58.0	—	£67.7	—	£55.9	—	£55.4

TABLE H.

INDICATORS OF EFFICIENCY ON DIFFERENT TYPES OF FARM IN SOUTH-EAST ENGLAND.

IDENTICAL SAMPLES FOR 1955-56 & 1956-57.

Type of Farm :	*Milk-selling Farms*		*Livestock Farms*		*Arable Farms*		*All Farms*	
	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57	1955-56	1956-57
System Index	138	144	94	94	201	209	140	145
Yield Index	106	108	90	92	103	88	103	103
Yield Index for Livestock	101	101	78	80	74	88	94	96
Value of Output per Livestock Unit	£91.7	£91.8	£52.9	£47.0	£62.3	£69.0	£82.2	£83.3
Milk Yield per Cow (Gallons) ...	768	769	—	—	—	—	768	769
Milk Sales per cow	£124	£123	—	—	—	—	£124	£123
Farm Feed Acres per Livestock Unit	—	2.01	—	2.25	—	2.19	—	2.07
Adjusted Feed Acres per Livestock Unit	—	2.88	—	2.74	—	2.85	—	2.86
Livestock Output per Adjusted Feed Acre	—	£31.7	—	£19.9	—	£30.4	—	£29.8
Labour and Machinery Costs per £100 Net Output	£59.3	£63.5	£53.6	£77.9	£49.8	£65.1	£57.2	£65.9
Power and Machinery Costs per 100 Tractor Work Units	—	£59.9	—	£52.7	—	£46.7	—	£57.2

TABLE J

FINANCIAL RESULTS ON AN IDENTICAL SAMPLE OF 80 FARMS IN SOUTH-EAST ENGLAND
1955-56, 1956-57 and 1957-58

RESULTS PER 100 ACRES

	1955-56	1956-57	1957-58
	£	£	£
OUTPUT			
Cattle	328	324	378
Sheep and Wool	196	204	263
Pigs	644	573	545
Poultry and Eggs	441	489	487
Milk	1803	1939	1908
Total Livestock	3412	3529	3581
Crops	1415	1188	1285
Miscellaneous	199	241	252
Total Output	5026	4958	5118
Less Purchased Feed	1248	1335	1257
,, ,, Seed	168	159	177
Net Output	3610	3464	3684
EXPENDITURE			
Fertilizers	274	279	297
Rent and Rates	249	270	289
Power and Machinery	715	725	739
Labour—paid and unpaid	1336	1381	1379
Miscellaneous	386	397	425
Total Expenditure	2960	3052	3129
Profit or Management & Investment Income	650	412	555

TABLE K

CHANGES IN ORGANIZATION AND YIELDS.

IDENTICAL SAMPLE OF 80 FARMS IN SOUTH-EAST ENGLAND, 1955-56, 1956-57 & 1957-58

	1955-56	1956-57	1957-58
LIVESTOCK UNITS PER FARM			
Dairy Cows	22.2	23.4	24.0
Total Cattle	39.9	42.4	42.8
,, Sheep	14.7	15.8	16.6
,, Pigs	5.3	6.2	6.6
,, Poultry	3.7	3.4	5.0
,, Livestock	64.0	68.1	71.2
YIELD INDICATORS			
Milk Yield per Cow—gallons	757	790	808
Milk Sales per Cow	£122	£127	£121
Livestock Output per Livestock Unit ...	£83.0	£82.2	£79.5
FEED ECONOMY			
Farm Feed Acres per Livestock Unit ...	2.06	2.06	2.00
Adjusted Feed Acres per Livestock Unit ...	2.98	2.84	2.76
Livestock Output per Adjusted Feed Acre	£27.8	£28.9	£28.8
Milk Sales per Adjusted Feed Acre ...	£40.8	£44.7	£43.9

DEFINITIONS

PROFIT or MANAGEMENT & INVESTMENT INCOME. These terms are used synonomously throughout. Profit is the sum available to reward the farmer for his management services and pay the interest on tenant's capital whether borrowed or owned. It may also be described as the difference between Output and Expenditure after making a charge for rent on owner occupied farms and inclusive of the estimated value of all unpaid family labour. The total disposable income of the tenant farmer differs from the above, therefore, according to the extent to which his liability for payments of interest on borrowed capital are offset by the non-payment of family labour.

OUTPUT is the value of sales during the farming year adjusted for changes in the level of opening and closing valuations. In the case of livestock it is also net of purchases.

TOTAL OUTPUT is the value of crop and livestock outputs and farmhouse consumption together with miscellaneous receipts and credits.

NET OUTPUT is Total Output less purchases of feedingstuffs and seeds. It provides a measure of the extent of farm self-sufficiency.

TOTAL EXPENDITURE is the sum of current expenses incurred by the tenant farmer exclusive of payments of interest and of livestock, feedingstuffs and seeds purchases which have been accounted for in arriving at Net Output.

TENANT'S CAPITAL is the average of opening and closing valuations of livestock, crops, machinery and stocks of fertilisers, seeds, feedingstuffs, etc.

FARM FEED ACREAGE, known alternatively as " Stock Acreage," is the total area of farmable land not used for the production of sale crops.

ADJUSTED FEED ACREAGE, is the sum of the Farm Feed Acreage and the acreage equivalent of purchased feed assuming one ton of concentrates is equivalent to one acre, etc. It is sometimes referred to as " Feed Acreage."

SYSTEM INDEX. This is a measure of business organisation. It indicates the potential level of output from an existing farm system assuming average physical and economic yields are obtained.

YIELD INDEX is an overall measure of economic yield. It indicates the relationship between certain assumed average yields from crops and livestock, valued at average farm gate prices in the case of sale products, and those obtained on an individual farm or group of farms.

TRACTOR WORK UNITS indicate the estimated tractor hours theoretically needed for crop and livestock production.