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Economics Department

PROFITABILITY OF FARMING
IN SOUTH-EAST SCOTLAND
1967/8

Bulletin 92

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Acknowledgments

More than 200 farmers provided the information on which this report is based and thanks are due to them and in many cases, their accountants for the service which they render to the department and to the industry as a whole.

Several members of the department have been concerned in the collection, analysis and preparation of the data. A major part of the field work was undertaken by Messrs. W. B. Duthie and J. A. Maclellan with assistance from J. L. Anderson, M. I. Webster and P. C. Martin. Miss W. G. Gibson and the clerical staff were responsible for the analysis of the information. Messrs. Duthie, Maclellan and Anderson prepared the commentary on the group results.

EAST OF SCOTLAND COLLEGE OF AGRICULTURE

Economics Department

Profitability of Farming
in South East Scotland
1967-68

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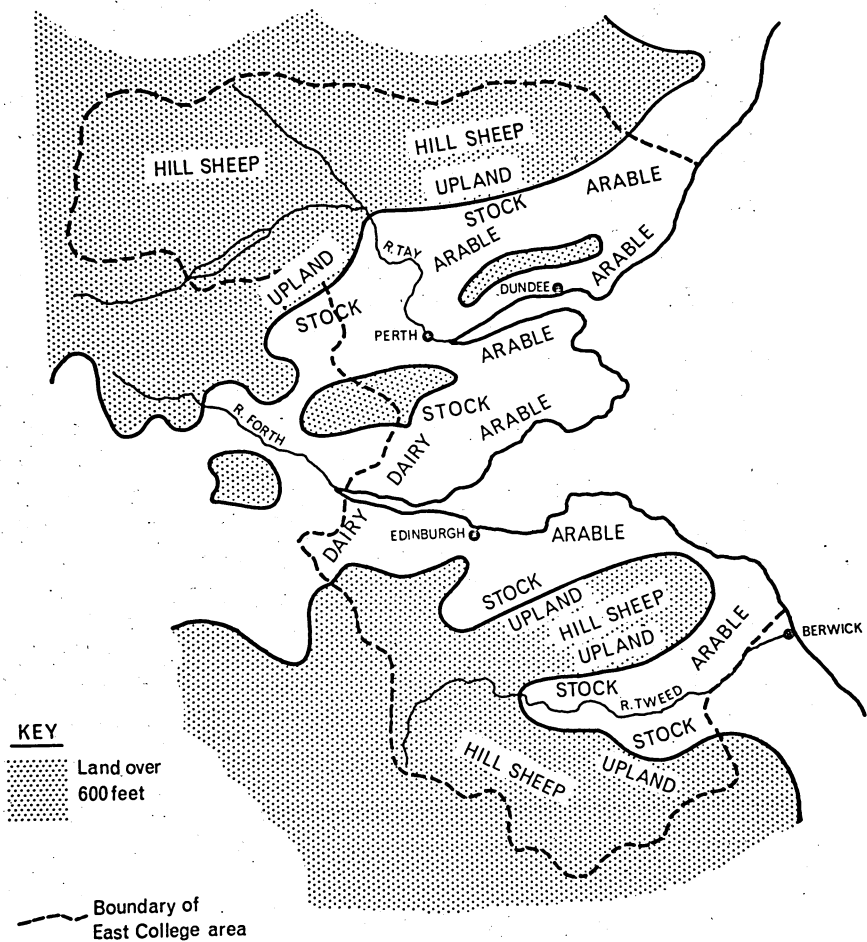
FOREWORD

In previous years, the financial results of the main types of farming in South East Scotland have been published in three separate reports. It is felt that by including all groups in a single publication, a better impression can be obtained of the overall profitability of farming in the area and, in addition, certain comparisons between the groups can be made.

Reports on farming profitability are of interest not only to the group of farmers who co-operated in the survey but also to many other people who, in one way or another, are concerned with the agricultural industry. Unfortunately, it is seldom possible to satisfy all the requirements of this varied readership whilst at the same time achieving a clear and concise presentation of the information. The term "profit" means different things to different people and misinterpretation is bound to occur unless accounting procedures and terminology are carefully defined. This however can make for very tedious reading. The compromise that is adopted in this and similar reports is to present the information in a standard form, relegating detailed discussion on terms and procedures to an appendix, with the hope that readers will check to see how the definitions used differ from their own concept of profit, output etc.

R. F. Lord
Head of Economics Department

TYPES OF FARMING IN SOUTH-EAST SCOTLAND



Introduction

The samples used in surveys of farming profitability are frequently criticised on the grounds that not only are they too small but also they are not representative of the area from which they are drawn. Seldom however is any definition of representativeness put forward. Obviously the sample should include the major types of farming in the area with small and large farms being represented. It might also be considered important to have a range of age and ability amongst the farmers, but this raises the problem of how the latter characteristic should be assessed. Co-operation in surveys is, in any case, on a voluntary basis and whilst some selection is possible, particularly as far as farming type is concerned, the occurrence of other factors is largely a matter of chance. Nevertheless, by directing attention to the results obtained by the same farmers over a number of years, a useful indication of trends in profitability can be obtained.

More than 200 farmers co-operate in the survey, but this report is based on 162 farms for which information is available for each of the three years 1965/6, 1966/7 and 1967/8.

They have been grouped into five main types of farming - Hill Sheep, Stock-Rearing, Stock-Raising and Feeding, Arable and Dairy - and a description of each precedes the detailed discussion of results. The farms in some groups such as Hill Sheep and Arable tend to be concentrated geographically, but the remainder are scattered throughout the area. Fig. 1 opposite shows that the east of the region is devoted mainly to arable farming with some dairying, whilst in the west, where much of the land is more than 600' above sea level, livestock rearing predominates.

Factors Influencing the Profitability of Farming

(a) Weather conditions

Inevitably the individual farmer regards climate as one of the main factors with which he has to contend. However, it is not easy to assess the effect that weather has on the overall profitability of different types of farming. Often severe weather at one stage of the season may be offset by more favourable conditions later on and, even where crop and livestock yields are reduced because of bad weather, there may be a compensating increase in prices. On arable farms, the weather risk has been reduced considerably in recent years by the introduction of large capacity machinery and, for the livestock farmer, similar benefits may be derived from the winter housing of stock. The management decision of how much to spend on bigger machines or new buildings as an insurance against weather does, of course, remain with us.

It is perhaps sufficient to say that according to the annual review of the weather published in the 'Scotsman', 1965 was notable for 'a very cool, wet summer - the rainiest since 1950', 1966 was a 'cold, windy, wet, dull year' whilst 1967, particularly for the east of Scotland, was a year of 'mainly dry and sunny weather'.

(b) Crop yields

In view of the importance of arable farming in south east Scotland, crop yields are obviously a significant factor determining overall profitability. Table I shows the average yields for Scotland in 1965, 1966 and 1967.

TABLE I : Average Yields per Acre - Scotland

	1965	1966	1967
Wheat	32.4 cwts	31.7 cwts	39.8 cwts
Barley	30.9 cwts	27.7 cwts	32.5 cwts
Oats	22.4 cwts	22.4 cwts	23.9 cwts
Potatoes	8.7 tons	8.8 tons	10.2 tons
Sugar beet	11.2 tons	11.1 tons	13.7 tons

Source - Scottish Agricultural Economics.

In 1967, yields for all crops were well above average and for cereals and potatoes were the highest yet recorded.

(c) Prices and costs

Attention is focussed on the level of prices and costs in the spring of each year when the Price Review negotiations take place.

The variation in the guaranteed price for certain commodities is shown in Table 2.

TABLE 2 : Guaranteed Prices 1965/6 - 1967/8

<u>Commodity</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>
Barley (per cwt)	25s.4d.	25s.4d.	24s.9d.
Potatoes (per ton)	285s.	290s.	290s.
Fat cattle (per live cwt)	174s.	184s.	189s.
Fat sheep (per lb d.c.w.)	3s.2d.	3s.2 ³ / ₄ d.	3s.3 ³ / ₄ d.
Milk (average per gal)	3s.5.85d.	3s.6.35d.	3s.7.66d.

Source : Annual Review White Papers.

For the individual farmer, however, the price actually received depends on quality, time of marketing and the operation of the standard quantity arrangements. Moreover, for the farmer selling store livestock, prices are likely to be influenced to a greater extent by seasonal fluctuations in supply and demand.

As far as costs are concerned, it is not surprising that most publicity is given to increases in the minimum wage rates in view of the importance of labour in total farm expenditure. The average statutory minimum wages for certain categories of worker are shown in the following table:-

TABLE 3 : Statutory Minimum Wage Rates 1965/6 - 1967/8

	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>	Increase over 3 yrs
	Shs. per week			%
Shepherds	236/9d	249/9d	261/6d	10.4
Stockmen	231/9d	244/9d	256/6d	10.7
Tractormen	220/5d	232/3d	243/5d	10.4

Source : Scottish Agricultural Economics Nos. 18 and 19

These increases do not affect all farmers to the same extent. A farmer employing no labour may merely note that his own work is now more highly valued by the rest of the community. One currently paying his men above the minimum rates will have to decide whether to pay more than the recommended increase in order to maintain the differential.

Later discussion of the group results will show that, in practice, cost increases are offset to some extent by greater efficiency (i.e. using less of the input than previously) and by substituting one input for another (i.e. machinery instead of labour).

There is a danger that concentration on the absolute level of costs and prices will divert attention from the importance of the ratio between them. In the three year period, 1965-67 (inclusive) the price of milk rose proportionately more than the cost of dairy concentrates and hence the milk : feed price ratio moved in favour of the dairy farmer.

(d) Production grants

The level of the production grants is of particular concern to farmers in the hill and upland areas of south east Scotland. The main changes during the three years are shown in Table 4.

TABLE 4 : Production Grants 1965 - 1967

<u>Subsidy</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
Hill cow (per cow)	£13	£13	£14.5s.
Beef cow (per cow)	-	£6.10s.	£7.10s.
Hill sheep (per ewe)			
- self maintained flocks	18/-	19/-	21/-
Upland sheep (per ewe)	-	-	10/6d.*
Winter keep:	£2.10s-£5	£2.10s-£5	£2.10s-£5
per acre**	+2/- per hill ewe	+ 2/- per hill ewe	+ 2/- per hill ewe
<u>OR</u>			£5 per hill cow
per head	-	-	+ 3/6d per hill or Upland ewe
Calf rearing (per calf)			
- heifers	£8	£8	£9
- steers	£10.5s.	£10.5s.	£11.5s.

*On hill cow subsidy land, irrespective of breed or cross of sheep.

**Of eligible crops.

Source : Annual Review White Papers.

The upland farmer benefited from the introduction of the beef cow and more particularly the upland sheep subsidies during this period. For the hill farmer there were increases in the hill cow, hill sheep and calf rearing subsidies ranging from 10-15%.

The Types of Farming

Hill Sheep Farms

Hill farms deriving their income mainly from store sheep and wool, with some sales of cattle. Farms and in-bye land lie at an elevation of between 750 - 2000' and are all eligible for the hill cow and hill sheep subsidies.

Divided into two groups:-

(a) North of the Forth

Farms in Perth and Angus. Average size over 3,500 acres, with steep, rocky, heather clad hills. Pure bred Blackface sheep. Ewe hoggs away-wintered.

(b) South of the Forth

Farms mainly in Roxburgh, Peebles and Selkirk. Average size about 2,200 acres. Hills smoother and more grassy than in the North. Both Blackface and South Country Cheviot sheep bred pure. Ewe hoggs mostly wintered at home.

Stock-Rearing Farms

Upland farms deriving their income in varying proportions from the sale of store cattle, sheep and crops. Farms widely scattered on the slopes of the hill areas at an elevation of between 350-750'. A large proportion are eligible for the hill cow and hill sheep subsidies. Divided into two groups (a) North of the Forth and (b) South of the Forth. On the farms in the north which average 500 acres, cattle are more important than sheep whilst in the south, where the average farm size is over 900 acres, the position is reversed.

Stock-Raising and Feeding Farms

Lowland farms, averaging about 300 acres in size, scattered throughout the area. Income derived from the sale of cattle and sheep, (both store and fat) and crops, in approximately equal proportions.

Arable Farms

Lowland farms specialising in the production of cereals, potatoes and sugar beet but with a substantial income also from fat cattle. Located mainly in East Lothian, Fife and Angus with an average farm size of 300 acres.

Dairy Farms

Lowland farms having dairying as the major enterprise. Divided into two groups:-

(a) Dairy/Arable

Farms mainly over 300 acres in size more than half of which is cropped with cereals and potatoes. The addition of a substantial dairy enterprise results in a high level of output.

(b) Specialist Dairy

Small family farms averaging 65 acres mainly located in West Lothian and Peeblesshire, producing milk and store cattle.

The Layout of the Financial Results

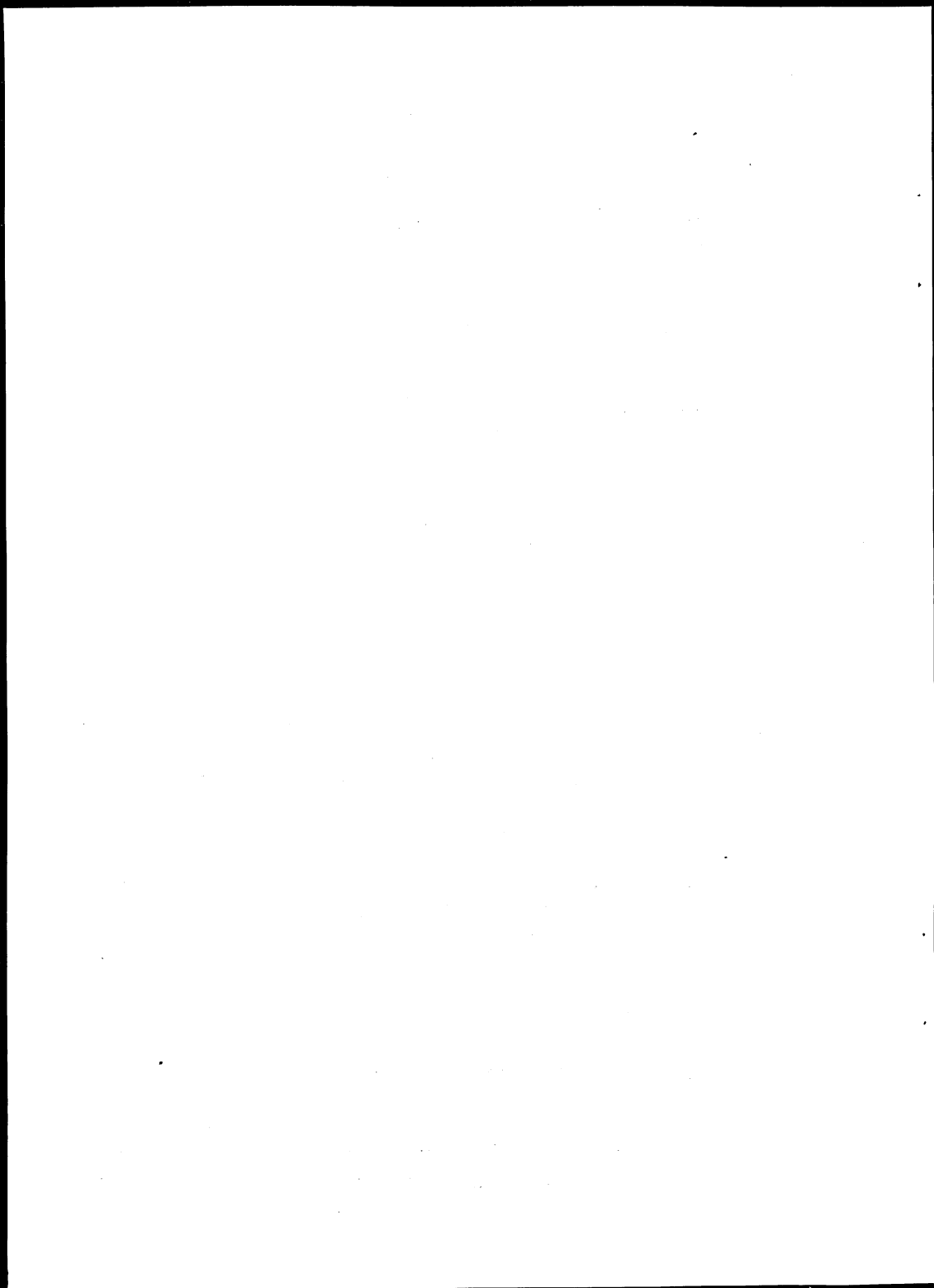
For each type of farming, results are presented in the following order:-

- A. Summary of the cropping and stocking, financial results and investment in tenants' capital for 1967/8.
- B. The financial results per farm for the same farms, for the three years 1965/6, 1966/7 and 1967/8.
- C. The financial results per 100 acres (or per 100 ewes in the case of the Hill Sheep farms) for the same farms, for the three years 1965/6, 1966/7 and 1967/8.
- D. Commentary on the results.

Whilst the results in section B give a better idea of the level of output, costs and net farm income obtained on the average farm business in each group, comparison between groups or between an individual farm and the appropriate group is only possible if the results per 100 acres in section C are used.

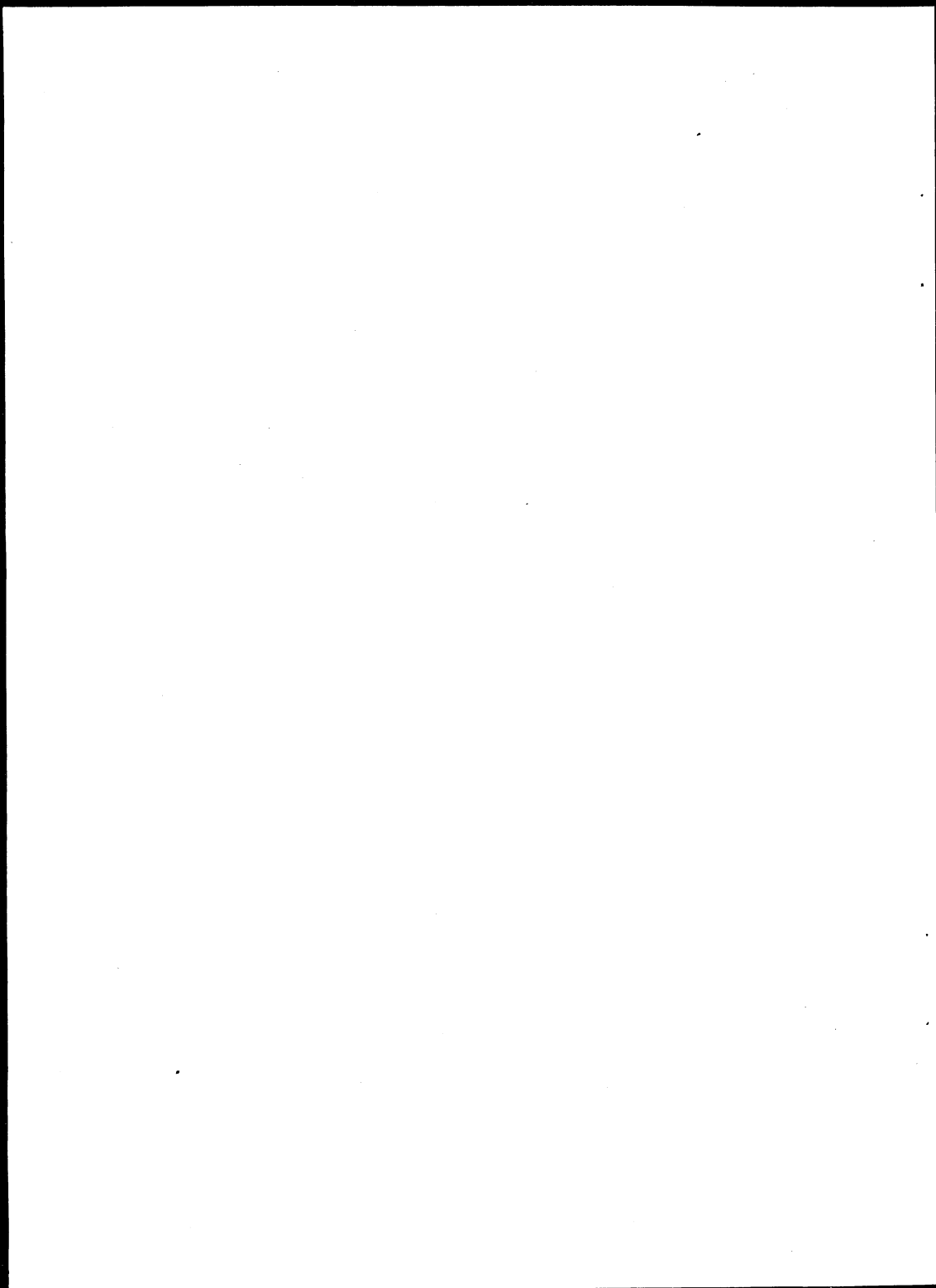
Unfortunately the variation in the quality in land is so great in the Hill Sheep group that comparison on the 'per acre' basis would be meaningless. The alternative of 'per 100 ewes' is chosen as it is a measure of size that is more obvious to the farmer than per '£100 Capital'.

On the Stock-Rearing farms where the proportion of rough grazing to permanent and rotational grassland varies considerably from one farm to another, it has been necessary to base comparison on 'per 100 adjusted acres'. The process of adjustment is explained in the Appendix.



GROUP I

HILL SHEEP - NORTH OF FORTH



1. HILL SHEEP
(NORTH OF FORTH)

A. No. of farms 11

Summary of Cropping and Stocking 1967/8

<u>Cropping</u>	<u>Acres</u> <u>per farm</u>	<u>%</u>	<u>Livestock</u>	<u>No.</u> <u>per farm</u>
Tillage	30	1	Cows	37
Grassland	91	2	Other cattle	19
Rough grazing	3546	97	Ewes	862
Total	<u>3667</u>	<u>100</u>	Other sheep	249

Summary of Financial Results in 1967/8.

	<u>Per farm</u> £	<u>Per 100 ewes</u> £
Gross output	8369	1018
Costs	<u>5810</u>	<u>707</u>
NET FARM INCOME	<u>2559</u>	<u>311</u>
<u>Less</u> farmers' labour	<u>740</u>	<u>90</u>
Management & investment income	<u>1819</u>	<u>221</u>

Tenants' Capital Investment 1967/8

	<u>Per farm</u> £	<u>Per 100 ewes</u> £
Cattle	2637	321
Sheep	5642	686
Crops and produce	863	104
Machinery	<u>1997</u>	<u>243</u>
Total	<u>11139</u>	<u>1354</u>

B. Financial Results

<u>Gross output</u>	<u>Per farm</u>		
	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>
	£	£	£
Cattle	1768	1782	2099
Sheep	5261	4372	5485
Pigs, poultry etc.	61	61	53
<u>Total livestock</u>	<u>7090</u>	<u>6215</u>	<u>7637</u>
Other	614	628	732
<u>Gross output</u>	<u>7704</u>	<u>6843</u>	<u>8369</u>
<u>Costs</u>			
(i) Variable:			
Purch.: feed	1440	1541	1584
" seed	94	94	127
Fertilisers	395	373	372
Other	396	488	436
	<u>2325</u>	<u>2496</u>	<u>2519</u>
(ii) Fixed:			
Labour	1201	1225	1259
Power costs	805	849	794
Rent and rates	536	526	523
Other	845	765	715
	<u>3387</u>	<u>3365</u>	<u>3291</u>
<u>Total costs</u>	<u>5712</u>	<u>5861</u>	<u>5810</u>
<u>NET FARM INCOME</u>	<u>1992</u>	<u>982</u>	<u>2559</u>
<u>Less farmers' labour</u>	<u>664</u>	<u>711</u>	<u>740</u>
<u>Management & investment income</u>	<u>1328</u>	<u>271</u>	<u>1819</u>

Average farm size = 3,667 acres

Carrying 862 ewes