HILL SHEEP FARMING

in the North of England

1957-9

S. ROBSON

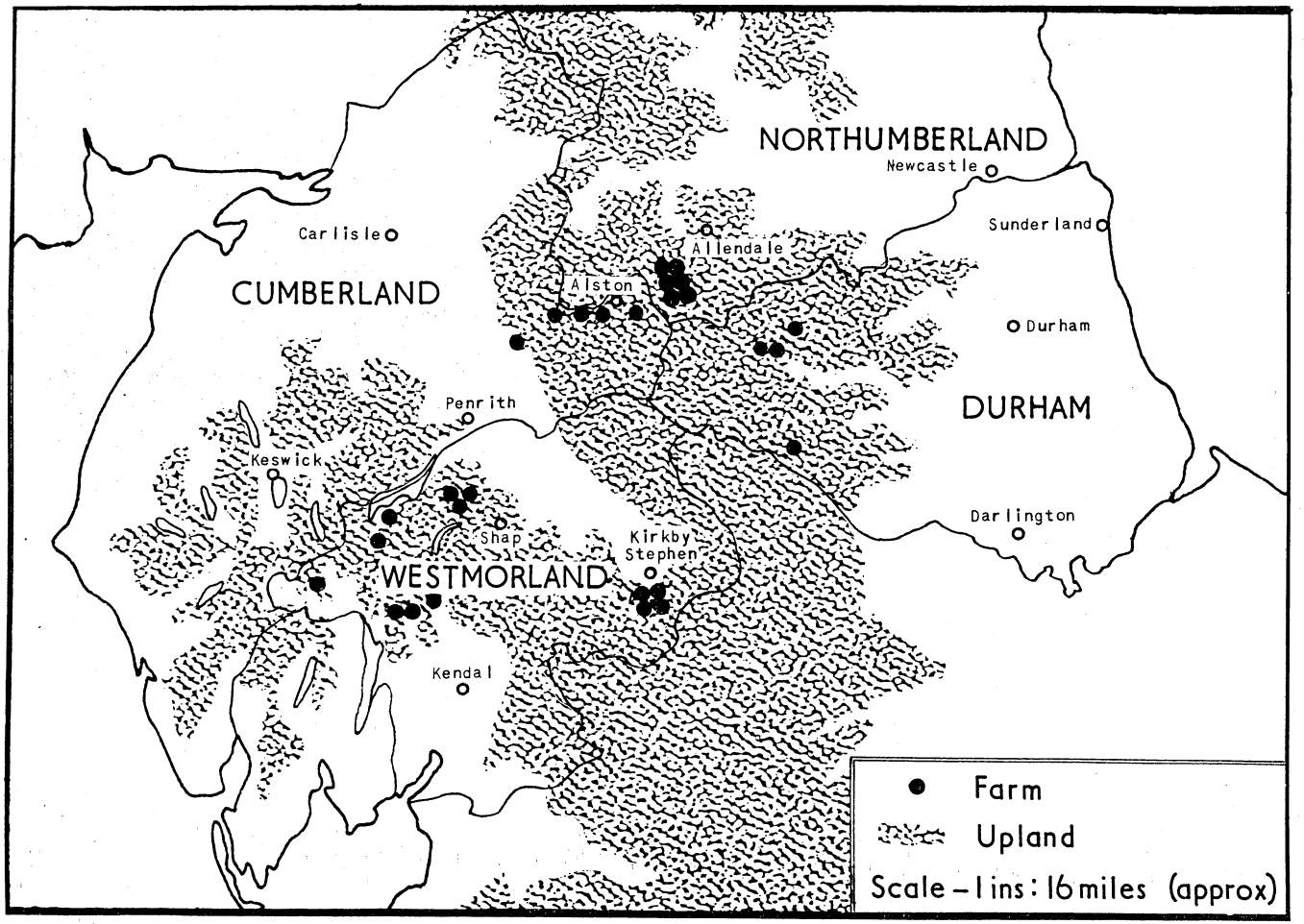
Report 146 FM.
august 1961 5/-

UNIVERSITY OF DURHAM
Department of Agricultural Economics
KING'S COLLEGE, NEWCASTLE UPON TYNE

HILL SHEEP FARMING
in the North of England
1957-9

S. ROBSON

UNIVERSITY OF DURHAM
Department of Agricultural Economics
KING'S COLLEGE, NEWCASTLE UPON TYNE



Distribution of Sample Farms.

CONTENTS

CHAPTER I

Introductory

The counties of Northumberland, Durham, Cumberland and Westmorland present varied types of farming with different management systems. Of these, hill farming is one of the most distinctive and important. Almost a quarter of the rough grazings in England and Wales are to be found in the four Northern Counties, and these are mainly for sheep pasturage though in some areas small numbers of cattle are also grazed.

In the North, as elsewhere, types of farming and management systems on the hills vary within wide limits, but two main systems can be identified. First, there are hill farms rearing cattle and sheep with dairying also important. Indeed, often the whole farm organisation may be geared to the dairy enterprise. Second, possibly less numerous, there are hill farms whose production consists only of rearing cattle and sheep. This report is concerned with the latter type. The system is imposed sometimes by altitude and at others because buildings are unsuitable for milk production. Of the farms included in this study three had previously produced milk for sale and been forced to cease production because of the reluctance of their Landlords to bring buildings up to the necessary standard, but very few farmers visited expressed any desire to have dairying as a main enterprise.

This report presents first a summary of financial and other aspects of hill farming for the three years 1957/58/59. Secondly, it gives detailed results for the year 1959.

Sheep Population

Before the results are discussed, some consideration of changes in sheep population during recent years may be of interest. In examining the statistics for the four Northern Counties it should be recognised that these comprise lowland as well as hill sheep, but the general picture will reflect the position on the hill land.

Changes in sheep numbers both for the four Northern Counties and England and Wales are shown in Figure 1. As in England and Wales, so in the North, total sheep had regained the 1939 level by 1959; the post-war rise in numbers which was checked by the severe weather of 1947 having continued fairly steadily from then onwards. There were, however, slight reductions both nationally and in the North in 1951 and 1955. These again can be attributed to bad weather. Table 1 gives details of changes in total sheep stocks in each of the four Northern Counties from 1939 until 1959.

Table 1. CHANGES IN TOTAL SHEEP STOCKS IN THE FOUR NORTHERN COUNTIES (from June Returns — 1939=100)

Year	Cumberland	West'land	North'land	Durham	Province
1939	100	100	100	100	100
1941	83	91	81	75	83
1943	71	84	74	65	74
1945	73	88	80	71	78
1947	58	62	67	52	62
1949	69	80	81	67	76
1951	74	83	79	72	78
1953	88	96	85	85	88
1955	82	91	84	88	85
1957	89	101	90	95	92
1959 (Provisional)	102	107	96	106	101

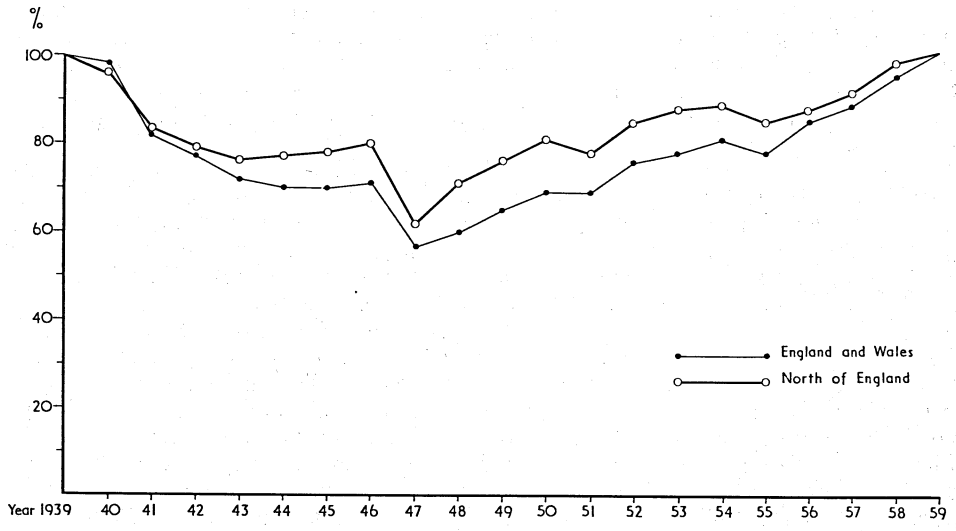


Fig. 1 Changes in Sheep Population 1939-1959. England and Wales and the North of England.

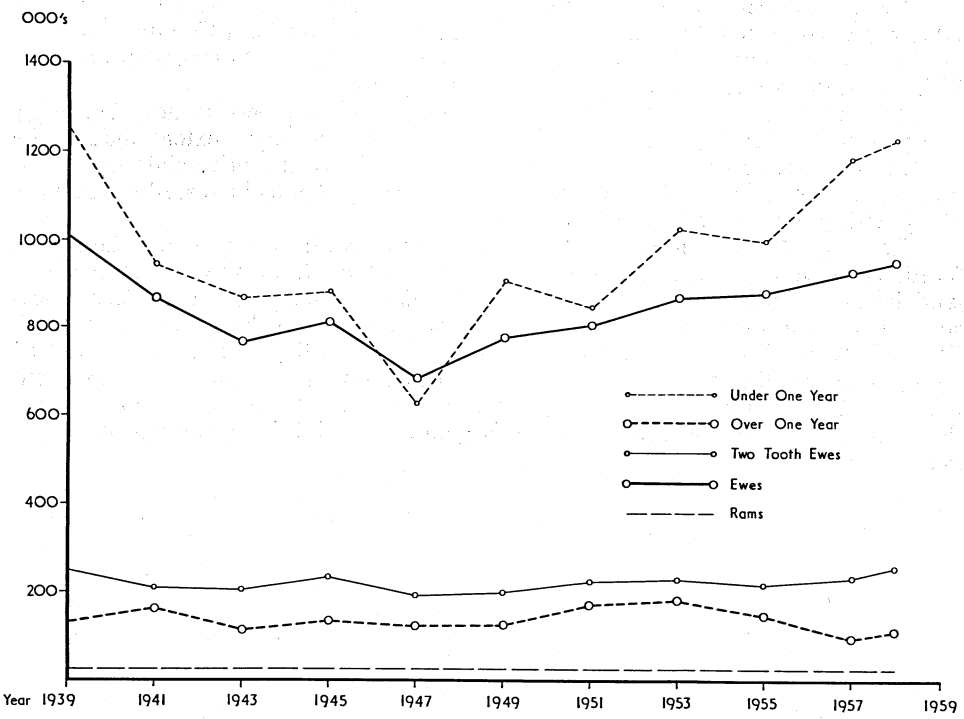


Fig. 2. Population of various categories of Sheep in the North of England—2-yearly intervals (June Returns) 1939-1958.

This shows that, in Westmorland, there was a slower rate of decline in numbers during the war years and a higher rate of increase post-war than in the other counties. Because of the preponderance of hill farms in this county and therefore the greater importance of sheep, it is perhaps not surprising that the 1939 level of sheep population was reached in 1957, somewhat earlier than in the other three counties.

Figure 2 shows the changes in population of various categories of sheep in the North since 1939. Interest will be centred on numbers of ewes and sheep under one year. Apart from the effects of season in 1951 and 1955, numbers of sheep under one year have increased since 1947 and at a greater rate than numbers of breeding ewes. It is clear that the number of lambs reared per ewe has increased, doubtless due to better application of the results of veterinary research and more efficient management. At the same time the results in Figure 3, where numbers of sheep under one year per 1,000 breeding ewes are presented, do not precisely describe changes in lambing percentages. This is because the figure is based on the June returns and therefore does not take into account early lambs killed before that date which are known to have increased in importance. In addition " breeding ewes " do not include draft ewes or geld ewes at the same date. Nevertheless, the figure can be taken to show an increase in lambing percentages since 1947 to a level somewhat above that obtained in 1939. The figures again demonstrate the importance of season on hill farming. Each of the difficult years already mentioned shows a fall in the number of sheep under one year per 1,000 breeding ewes.

Cattle numbers have also increased. In England and Wales there were 20% more cattle in 1958 than in 1939, and in the four Northern Counties increases of 34% in Cumberland, 30% in Westmorland, 16% in Northumberland and 21% in Durham were recorded during the same period.

The effect of the expansion in cattle and sheep numbers is now beginning to show in the level of prices received, though it is to some extent masked by changes in climatic conditions from year to year. Thus, the price slide in 1959 is now recognised to have been caused as much by the weather as increased production, along with more imports from New Zealand.

Because of the limited choice of enterprises with which a hill farmer is faced, he is more vulnerable to over production of cattle or sheep than the low-land farmer. Moreover, he cannot as easily take advantage of guaranteed prices since a limited number of his stock can be sold as finished beef or mutton. The following discussion shows very clearly how falling prices have affected these farms in the past three years. Unfortunately it is difficult to hold out much hope that the position will improve. Indeed, it seems far more likely that hill farm profits will continue to fall unless special Exchequer provision is made.

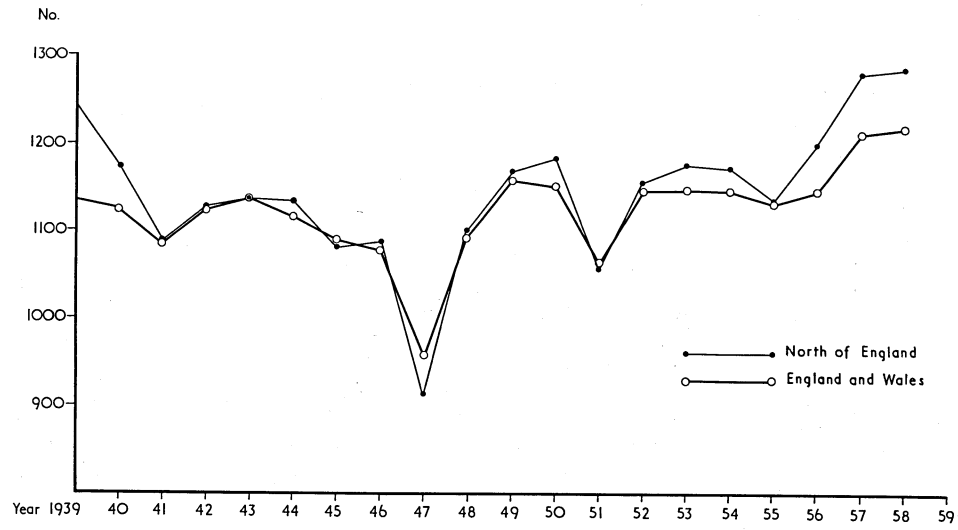


Fig. 3. Sheep under one year per 1,000 Breeding Ewes. England and Wales and the North of England.

CHAPTER II

THREE-YEAR COMPARISON 1957-59

The Sample

Records were obtained over three years from an identical sample of 28 farms. These have been divided into four type groups:—

Group A — 8 farms with stinted fell grazing rights.
Group B — 9 farms with unlimited fell grazing rights.
Group Ci — 6 farms (under 1,000 acres) with fell grazing in sole occupation.
Group Cii — 5 farms (over 1,000 acres) with fell grazing in sole occupation.

The farms included in these groups are widely spread, but they are situated in three main areas. Ten are on the Eastern Pennines, nine on the West side of the Range and nine in the Lake District. The actual location of the farms is shown in the map on page 3. Most of the farms are at high elevations, 17 having their in-bye land at or above 1,000 feet. Of the remaining 11 farms in the sample 5 have some land between 800 and 900 feet, while the steadings and in-bye land of 6 are between 400 and 600 feet. In the latter case the land rises steeply from the valley in which the steadings lie to fell grazing at considerably higher altitudes. It is a feature of hill farming in the North that there are considerable differences between farms in their control over the land which they occupy. This is reflected in the sample farms. Thus, in Group A, in which all farms had common grazings, 34% of the land was in sole occupation against 18% in Group B where common grazings also formed part of the holdings. The farms in Group C, of course, had no grazing in common.

Another aspect of control over the land, however, is the amount of in-bye in relation to fell grazing. In Groups A and B the proportion of rough grazing in sole occupation to in-bye land was similar, but Group B had more common grazing. Group Ci had 22% of its land in-bye and Group Cii only 8%. Moreover, all the farms in Group Ci had fairly small fenced allotments while those in Cii had greater acreage of more mountainous fell land. It is quite clear, therefore, that the degree of close supervision over the sheep which was possible varied considerably between the groups.

There was little arable cropping; indeed, on only 8 farms was a small acreage ploughed and in all cases this was to provide food for the sheep or cattle.

Organisation

The majority of the holdings included in the survey can be described as family farms. On only 11 was regular labour employed, amounting in total to 11 men over 21 years and 6 youths or boys. Nine of these adult workers were shepherds on five farms. Of the remaining 17 farms in the survey only 9 employed family labour in addition to the farmer and his wife. There was little casual labour on any of the farms. The traditional practice of mutual help with clipping and dipping virtually obviates the need for employing casual workers. Table 2 describes the composition of the labour force in each group.

Tractors mainly supply the power on these farms. Only two small farms of 50 and 56 acres respectively depended solely on horses. In addition, there were six farms with Landrovers. The only other equipment of importance was the baler which was found on 7 farms.

Table 2. COMPOSITION OF LABOUR

	No. of Farms with no hired or Family Labour (some Casual)	No. of Farms with Family Labour Only	No. of Farms with Hired Labour	Total
Group A ...	3	3	2	8
Group B ...	1	5	3	9
Group Ci ...	4	1	1	6
Group Cii ...	—	—	5	5
Total ...	8	9	11	28

Climatic Conditions

The importance of weather on hill farms has already been mentioned. It is necessary, therefore, to review climatic conditions over the past three years. The year 1956/57 was favourable to sheep production; the winter of 1956 being generally mild and the spring and summer of 1957 being marked by no abnormal conditions. It can be said that the data presented for 1956/57 reflects a favourable year climatically for hill farming. Conditions in 1957/58 were less kind. A cold, wet spring was followed by a wet summer. This led, on these farms, to a below average wool clip and was probably partly the cause of lower prices being realised for draft ewes and lambs. No one concerned with livestock will have forgotten the weather conditions of 1959. Not only was the dry summer unsuitable for grass production and therefore for the rearing of hill lambs, but similar conditions on lowland farms led to a marked fall in demand for store sheep at the very time when hill lambs were of necessity offered for sale.

Financial Results 1957/59

Table 3 gives a summary of various measures of profit and performance for each group over the three years.

Table 3. INPUT, OUTPUT AND PROFIT PER 100 ASSESSED ACRES

		Profit	Management and Investment Income	Gross Output	Total Input
		£	£	£	£
Group A	1957	140	59	379	320
	1958	140	61	394	333
	1959	91	15	363	348
Group B	1957	99	41	311	270
	1958	88	30	318	288
	1959	83	24	306	282
Group Ci	1957	390	171	920	749
	1958	269	50	886	836
	1959	245	26	830	804
Group Cii	1957	125	98	281	183
	1958	96	69	264	195
	1959	70	43	254	211

Despite the small size of the sample the general downward trend in profitability of hill farming is clear. Over all the 28 farms, profits declined by 34% between 1957 and 1959. For the large hill farms with all their land in sole occupation the decrease was as much as 44%.

Individual results show 17 farms whose profits declined between 1957 and 1958 and 11 farms where slight increases in profit occurred. Between 1958 and 1959, 20 farms showed reduced profitability while 8 slightly increased their net income.

Falling gross output in face of increasing costs, as in other sectors of farming, can be seen to be the reason for reduced profits. Reduced output can be attributed almost entirely to the sheep and this further traced to lower prices realised for lambs. On only one farm was there a steady increase in sheep output over the three years. Some rise in cattle output occurred on most farms during the period but was insufficient to offset the adverse results with sheep.

Table 4 shows that Government grants contributed a considerable proportion of the profit obtained on these farms, not that this is necessarily greater than for other types of farming. The figures in the table do not take into account fertiliser subsidies nor capital improvement grants, only those items of Exchequer support which can be readily identified have been deducted to show the profits which would otherwise have obtained.

Table 4. PROFITABILITY PER FARM

		Profit	Grants	Profit Net of Grants
		£	£	£
Group A	1957	1,489	307	1,182
	1958	1,203	379	824
	1959	744	414	330
Group B	1957	880	298	582
	1958	781	295	486
	1959	673	407	266
Group Ci	1957	1,088	190	898
	1958	781	234	547
	1959	833	348	485
Group Cii	1957	2,374	322	2,052
	1958	2,150	403	1,747
	1959	1,542	493	1,049

It is beyond the scope of this report to argue the case either way for or against additional support to hill farming, but it is clear that if profits continue to decrease these farms will become increasingly dependent upon the taxpayer if they are to survive.

It has already been stated that on some of these farms cattle constitute an important part of the farming business. Table 5 shows that the actual contribution of breeding cows and other cattle to the farm output varies considerably between groups.

Table 5A. COMPOSITION OF OUTPUT

		PER FARM				PER CENT			
		Sheep	Cattle	Other	Total	Sheep	Cattle	Other	Total
		£	£	£	£	%	%	%	%
GROUP A ...	1956/57	2,289	986	190	3,465	66	28	6	100
	1957/58	1,961	1,209	208	3,378	58	36	6	100
	1958/59	1,785	1,247	86	3,118	57	40	3	100
GROUP B ...	1956/57	1,566	876	363	2,805	56	31	13	100
	1957/58	1,517	1,023	304	2,844	53	36	11	100
	1958/59	1,463	1,070	266	2,799	52	38	10	100
GROUP Ci ...	1956/57	1,372	911	273	2,556	54	36	10	100
	1957/58	1,283	954	247	2,484	52	38	10	100
	1958/59	1,123	1,104	183	2,410	47	46	7	100
GROUP Cii ...	1956/57	4,338	788	430	5,556	78	14	8	100
	1957/58	3,862	1,166	442	5,470	71	21	8	100
	1958/59	3,613	1,298	267	5,178	70	25	5	100

Table 5B AVERAGE STOCKING AND ACREAGE DATA

		SHEEP			CATTLE					Acres per Farm		
		Breeding Ewes	Other Sheep	Total Sheep	Breeding Cows	Other Cattle	Total Cattle	No. of Sheep per Beast	Proportion of Land Inbye	Inbye Acreage	Sole Acreage	Total Assessed Acreage
		No.	No.	No.	No.	No.	No.	No.	%	acres	acres	acres
GROUP A ...	1956/57	440	132	572	18	25	43	13	11	107	329	969
	1957/58	455	144	599	19	28	47	13	11	105	331	971
	1958/59	461	146	607	20	31	51	12	11	106	331	977
GROUP B ...	1956/57	380	177	557	13	25	38	15	10	101	161	968
	1957/58	405	198	603	13	25	38	16	10	101	161	968
	1958/59	428	208	636	14	26	40	16	10	101	171	977
GROUP Ci ...	1956/57	183	50	233	7	24	31	7	22	67	310	310
	1957/58	183	65	248	8	23	31	8	22	67	310	310
	1958/59	189	61	250	9	25	34	7	22	67	310	310
GROUP Cii ...	1956/57	1,053	443	1,496	13	34	47	32	8	183	2,252	2,252
	1957/58	1,069	478	1,547	15	35	50	31	8	183	2,252	2,252
	1958/59	1,098	491	1,589	17	35	52	31	8	183	2,252	2,252

In the main, however, this investigation is concerned with hill sheep production. Moreover, since systems of cattle production on the hills differ from farm to

farm it is difficult to give a useful separate picture of this side of the farming business. The following tables, therefore, refer only to the production of hill sheep.

Table 6. SHEEP OUTPUT, SALES OF SHEEP AND WOOL PER 100 EWES (OPENING VALUATION)

		Sheep Gross Output	Sales of Sheep	Wool
		£	£	£
Group A	1957	529	434	99
	1958	468	405	85
	1959	412	356	89
Group B	1957	437	280	114
	1958	385	252	103
	1959	364	225	103
Group Ci	1957	772	758	82
	1958	729	830	72
	1959	588	662	74
Group Cii	1957	444	351	102
	1958	376	292	90
	1959	354	293	92

Table 7. LAMBS BORN AND REARED PER 100 EWES TO RAM AND WOOL PRODUCTION

		Lambs Born Per 100 Ewes	Lambs Reared to Ram	Weight of Wool per Fleece	Value of Wool per Fleece	Average Price per lb.
		No.	No.	lbs.	s. d.	s. d.
Group A ...	1957	102	98	3.99	15 6	3 11
	1958	102	97	3.55	13 7	3 10
	1959	103	100	3.78	13 7	3 8
Group B ...	1957	87	81	3.89	16 3	4 1
	1958	88	79	3.77	14 11	3 11
	1959	89	82	3.69	14 10	4 0
Group Ci ...	1957	120	115	3.84	15 0	3 10
	1958	123	118	3.47	12 10	3 8
	1959	118	113	3.58	12 11	3 8
Group Cii ...	1957	90	84	3.79	14 8	3 10
	1958	88	81	3.63	13 6	3 8
	1959	93	88	3.59	13 0	3 7

The figures for sheep output, including wool, per 100 ewes bear out the earlier statement that there has been a steady decline in gross output from sheep. In Group Cii 14% of all lamb sales in 1959 were through the Fat Market, while all the farms in this group sold only store lambs in 1957 and 1958.

Despite the general relationship between climatically bad sheep years, and numbers of sheep at the 4th June which was noted in Chapter I, it can be seen that lambing percentages did not, on these farms, vary during the period. The fact that the best lambing results were found in Group Ci and the worst in Groups B and Cii can be directly attributed to the more intensive sheep manage-

ment possible on the smaller fenced fells in sole occupation in Group Ci compared with greater areas of rough grazing either unfenced or grazed in common in the other groups.

Reductions in receipts for wool during the three years were far less than the decrease in total sales of sheep. Differences between the groups show that the farms in Group B sold considerably more wool per 100 ewes than those in the other groups. This can be attributed to the preponderance of heavier woolled Rough Fell sheep on these farms, whose fleeces command a higher price per lb. than those of Swaledales which are more common in other groups. Table 8 demonstrates very clearly how falling prices for ewes and fat or store lambs have brought about the decrease in sheep output already noted.

Table 8. AVERAGE PRICES REALISED AND NUMBER OF FARMS SELLING DRAFT EWES, STORE AND FAT LAMBS

	Draft Ewes		Store Lambs		Fat Lambs	
	No. Selling	£ s. d.	No. Selling	£ s. d.	No. Selling	£ s. d.
GROUP A (8 Farms)						
1957	7	4 9 8	8	4 18 0	1	4 9 2
1958	8	4 8 10	8	3 17 8	3	3 18 10
1959	8	3 6 7	8	3 7 4	2	4 2 7
GROUP B (9 Farms)						
1957	8	5 1 8	8	3 12 6	7	5 2 7
1958	9	4 4 4	8	2 19 4	6	4 7 5
1959	8	3 7 0	7	2 12 8	7	4 7 3
Group Ci (6 Farms)						
1957	5	4 0 0	6	6 15 7	1	5 3 1
1958	6	3 8 11	6	6 4 4	1	6 10 7
1959	5	2 5 10	6	4 17 9	3	6 13 9
Group Cii (5 Farms)						
1957	5	4 16 4	5	3 19 7	—	—
1958	5	4 13 6	5	3 7 11	—	—
1959	5	3 2 11	5	2 19 9	5	4 1 9
All Farms (28 Farms)						
1957	25	4 15 4	27	4 14 0	9	4 14 10
1958	28	4 8 10	27	4 0 1	10	4 16 11
1959	26	3 4 4	26	3 7 6	17	4 11 7

Between 1957 and 1958 only five farms received increased prices for draft ewes of from 5/– to 16/– per head. On two farms the same price was received in both years, and the remaining 18 farms obtained prices depressed by from 2/– to 28/– per head in 1958. Between 1958 and 1959 only two farms received increased prices per head for their draft ewes and the remainder suffered decreases ranging from 2/– to 56/– per head.

For store lambs, the individual results between 1957-1958 show only one farm with an increase of 3/– per head, one where the 1957 price was maintained, but on the others there was a fall of from 4/– to 30/– per head. Between 1958 and 1959 two farms had price increases but for the rest decreases in price ranged from 1/– to 33/– per head. Between 1957 and 1959 all farms suffered a fall in the price received per head for store lambs.

The proportion of fat lambs sold varied between the groups. Group B was notable for selling the highest proportion of lambs fat. This appears to be the result of an attempt by these farmers to offset the disadvantages of lack of control over sheep grazing by making as much use as possible of their in-bye land to finish a high proportion of their lambs.

CHAPTER III

1959 SURVEY RESULTS

The results included in this chapter are for the year 1959. For this year records were obtained from 36 farms which were grouped as follows:—

Group A — 9 farms with stinted fell grazing rights.
Group B — 11 farms with unlimited fell grazing rights.
Group C — 16 farms with rough or fell grazing in sole occupation sub-divided into:—
Ci — 10 farms mainly cross-breeding; and
Cii — 6 farms mainly pure breeding.

It will be noted that the basis of sub-division in Group C differs here from that used for the identical sample discussed in Chapter II. The present grouping is on the basis of sheep management not of acreage. Nevertheless, the farms in Group Cii are still considerably larger than those in Group Ci. Table 9 gives details of average acreage and stocking and of breeds and numbers of cows and sheep on the sample farms.

The remaining tables require no comment. They present first, a financial summary for each group, then an average trading account in the form of an input/output statement. Selected financial features of individual farms are given in Tables 12 to 15. In these tables the results for each individual farm are arranged in order of profit per 100 assessed acres. Finally, results on individual farms relating solely to the sheep flock are presented in Tables 16 to 19.

Table 9. AVERAGE ACREAGE AND STOCKING AND BREEDS OF COWS AND SHEEP

Group	A Farms with stinted fell rights		B Farms with unlimited fell rights		C Farms with rough or fell grazing in sole occupation i		C ii	
Number of farms	9		11		10		6	
	Acres	%	Acres	%	Acres	%	Acres	%
Inbye acreage (per farm)	105	11	92	10	142	23	181	9
Rough or fell grazing (per farm)	211	22	70	8	477	77	1912	91
Total sole acres (per farm)	316	33	162	18	619	100	2093	100
Stint or grazing right equivalent (per farm) ...	638	67	756	82	—	—	—	—
Total assessed acres (per farm)	954	100	918	100	619	100	2093	100
Range in farm size (sole acres)	56—1000		49— 344		160—1572		1063—3546	
Range in farm size (assessed acres)	316—2521		287—1328		—		—	
Average number of cattle per farm	49		40		60		47	
Range in average number of cattle	12— 136		20— 67		16— 166		19— 74	
Average sheep flock per farm	576		592		425		1428	
Range in average sheep flock	179—1639		186—1006		100— 844		621—2470	
Average number of breeding ewes per farm ...	437		398		314		999	
Range in average number of breeding ewes ...	141—1279		121— 659		91— 593		504—1785	
Breed of cows								
Numbers of farms keeping Galloways or Galloway Cross	3		2		7		3	
Shorthorn	4		3		2		—	
Mixed	1		6		1		3	
Crossbred	1		—		—		—	
Breed of sheep								
Number of farms keeping Swaledale or mainly Swaledale	9		4		7		4	
Rough Fell	—		6		1		—	
Scotch Blackface	—		—		2		1	
Herdwick	—		1		—		1	

Table 10. FINANCIAL SUMMARY

Group	PER FARM				PER £100 CAPITAL (CATTLE AND SHEEP)				PER 100 ASSESSED ACRES			
	A	B	C		A	B	C		A	B	C	
			i	ii			i	ii			i	ii
	£	£	£	£	£	£	£	£	£	£	£	£
Inventory Capital ...	6,990.2	5,744.5	7,325.8	11,199.4	120.9	125.1	133.4	117.9	732.6	625.5	1,183.5	535.1
Sheep and Cattle Inventory ...	5,857.8	4,716.3	5,632.5	9,692.0	—	—	—	—	613.9	513.5	909.9	463.1
Gross Output ...	3,046.8	2,811.8	3,808.9	4,776.8	52.7	61.2	69.3	50.3	319.3	306.2	615.3	228.2
Net Output ...	2,425.6	2,164.9	3,225.5	3,932.2	42.0	47.1	58.7	41.4	254.2	235.7	521.1	187.9
Total Income ...	3,358.2	2,857.2	4,760.0	5,061.5	58.1	62.2	86.7	53.3	351.9	311.1	769.0	241.8
Total Expenses ...	2,729.9	2,348.1	3,610.0	4,054.3	47.2	51.1	65.7	42.7	286.1	255.7	583.2	193.7
Surplus of Income over Expenses ...	628.3	509.1	1,150.0	1,007.2	10.9	11.1	21.0	10.6	65.8	55.4	185.8	48.1
Net Profit (Net Income)	724.6	741.8	1,370.7	1,383.7	12.5	16.2	25.0	14.6	75.9	80.8	221.8	66.1
Management and Investment Income	298.3	271.4	889.2	920.8	5.1	5.9	16.2	9.7	31.3	29.6	143.6	44.0

Table 11. GROSS OUTPUT AND TOTAL INPUT

	PER 100 ASSESSED ACRES				PER £100 CAPITAL (CATTLE AND SHEEP)				PER CENT			
	A	B	C		A	B	C		A	B	C	
			i	ii			i	ii			i	ii
GROSS OUTPUT	£	£	£	£	£	£	£	£	%	%	%	%
Cattle	127.5	118.4	284.8	57.7	21.0	23.7	32.1	12.7	39.8	38.6	46.3	25.3
Sheep and Wool	182.7	156.4	298.0	159.5	30.2	31.3	33.6	35.2	57.3	51.1	48.5	69.9
Other Livestock	2.4	19.5	15.4	5.5	0.4	3.8	1.7	1.2	0.8	6.4	2.5	2.4
Livestock Output	312.6	294.3	598.2	222.7	51.6	58.8	67.4	49.1	97.9	96.1	97.3	97.6
Other Output	6.7	11.9	17.1	5.5	1.1	2.4	1.9	1.2	2.1	3.9	2.7	2.4
TOTAL GROSS OUTPUT	319.3	306.2	615.3	228.2	52.7	61.2	69.3	50.3	100.0	100.0	100.0	100.0
INPUT												
Fixed—												
Regular Labour Paid	55.3	45.7	72.2	40.1	9.2	9.2	8.1	8.9	19.3	16.5	15.3	21.9
Farmer and Wife	44.7	51.2	77.8	22.1	7.4	10.3	8.8	4.9	15.6	18.5	16.6	12.1
Machinery Depreciation and Maintenance	35.2	34.1	74.8	26.5	5.8	6.8	8.4	5.8	12.2	12.3	15.8	14.3
Rent	24.3	19.6	57.1	20.1	4.0	3.9	6.4	4.4	8.4	7.1	12.1	10.8
General Expenses	12.3	10.7	19.4	7.2	2.0	2.1	2.2	1.6	4.2	3.9	4.1	3.9
TOTAL FIXED INPUT	171.8	161.3	301.3	116.0	28.4	32.3	33.9	25.6	59.7	58.3	63.9	63.0
Variable—												
Feeds	65.0	70.1	92.2	40.1	10.7	14.0	10.4	8.8	22.5	25.3	19.6	21.7
Other Livestock Input	10.4	10.7	15.2	9.0	1.7	2.1	1.7	2.0	3.6	3.9	3.2	4.9
Livestock Input	75.4	80.8	107.4	49.1	12.4	16.1	12.1	10.8	26.1	29.2	22.8	26.6
Fertilizers	9.7	10.1	20.4	4.7	1.6	2.0	2.3	1.0	3.4	3.7	4.3	2.5
Other Crop Input	0.3	0.4	4.0	0.7	0.1	0.1	0.5	0.2	0.2	0.1	1.0	0.5
Crop Input	10.0	10.5	24.4	5.4	1.7	2.1	2.8	1.2	3.6	3.8	5.3	3.0
Seasonal Labour Contract ...	10.8	9.9	12.2	3.2	1.8	2.0	1.3	0.7	3.8	3.6	2.4	1.7
Machinery Fuel, etc.	20.0	14.1	26.4	10.5	3.3	2.8	3.0	2.3	6.8	5.1	5.6	5.7
TOTAL VARIABLE INPUT	116.2	115.3	170.4	68.2	19.2	23.0	19.2	15.0	40.3	41.7	36.1	37.0
TOTAL INPUT	288.0	276.6	471.7	184.2	47.6	55.3	53.1	40.6	100.0	100.0	100.0	100.0
Management and Investment Income	31.3	29.6	143.6	44.0	5.1	5.9	16.2	9.7	—	—	—	—

Table 12. INDIVIDUAL FARM RESULTS IN ORDER OF PROFIT PER 100 ASSESSED ACRES

Group A

Farm No.	PER 100 ASSESSED ACRES: Net Profit	Management & Investment Income	Farm Gross Output	Farm Net Output	Total Input	MAIN INPUT ITEMS: Bought Feed	Fertilisers	Labour	Machinery	Other	COMPOSITION OF £100 GROSS OUTPUT: Sheep	Cattle	Other	PER £100 CAPITAL IN CATTLE AND SHEEP: Net Profit	Management & Investment Income	Farm Gross Output	Farm Net Output	Total Inputs	MAIN INPUT ITEMS: Bought Feed	Fertilisers	Labour	Machinery	Other
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
139	203.5	76.9	588.0	413.3	511.1	174.6	27.9	163.6	78.8	66.2	41	53	6	24.7	9.4	71.3	50.1	61.9	21.2	3.4	19.7	9.6	8.0
110	177.3	65.9	401.1	361.8	335.2	39.3	17.9	120.8	90.6	66.6	48	46	6	31.1	11.6	70.5	63.6	58.9	6.9	3.2	21.2	15.9	11.7
107	117.4	56.8	371.4	276.4	314.6	95.0	20.3	81.2	59.4	58.7	65	29	6	16.0	7.7	50.5	37.6	42.8	12.9	2.8	11.0	8.1	8.0
137	97.8	72.4	272.7	225.0	200.3	47.0	8.4	46.5	58.4	40.0	60	38	2	21.4	15.9	59.8	49.3	43.9	10.3	1.8	10.3	12.7	8.8
201	72.9	19.2	319.6	246.8	300.4	72.8	1.7	124.9	55.3	45.7	57	39	4	16.6	4.4	72.8	56.2	68.4	16.6	0.4	28.4	12.6	10.4
108	70.5	−45.9	384.6	328.3	430.5	56.3	14.2	200.0	106.3	53.7	39	58	3	8.5	−5.5	46.5	39.7	52.0	6.8	1.7	24.2	12.8	6.5
112	52.3	31.4	308.6	242.3	277.2	66.3	9.4	119.6	36.1	45.8	61	38	1	8.2	5.0	48.3	37.8	43.3	10.3	1.5	18.7	5.6	7.2
106	35.9	−117.5	326.2	277.3	443.7	49.0	5.5	271.7	71.1	46.4	66	26	8	5.9	−19.2	53.4	45.4	72.6	8.0	0.9	44.5	11.6	7.6
109	−22.6	−22.6	252.0	192.8	274.6	59.2	1.8	129.1	42.8	41.7	58	42	—	−3.1	−3.1	34.6	26.4	37.7	8.1	0.3	17.7	5.9	5.7

Table 13. INDIVIDUAL FARM RESULTS IN ORDER OF PROFIT PER 100 ASSESSED ACRES

Group B

	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
207	222.8	126.7	597.3	433.2	470.6	164.2	1.3	179.7	71.4	54.0	35	47	18	36.7	20.9	98.5	71.4	77.6	27.1	0.2	29.6	11.8	8.9
123	202.8	57.8	535.2	393.4	477.4	141.8	10.5	190.9	73.2	61.0	38	35	27	33.7	9.6	88.8	65.3	79.2	23.5	1.7	31.7	12.1	10.2
130	138.8	96.5	321.6	273.7	225.1	47.9	11.4	75.9	47.7	42.2	54	41	5	20.3	14.1	47.1	40.1	33.0	7.0	1.7	11.1	7.0	6.2
208	118.7	51.0	329.6	231.4	278.6	98.2	13.9	74.3	49.1	43.1	59	34	7	25.3	10.9	70.4	49.4	59.5	21.0	3.0	15.8	10.5	9.2
131	114.9	30.7	264.5	184.1	233.8	80.4	1.8	84.2	24.6	42.8	45	34	21	5.2	7.4	63.9	44.5	56.5	19.4	0.4	20.4	5.9	10.4
125	80.7	40.1	275.5	197.2	235.4	78.3	10.3	74.9	34.7	37.2	60	34	6	13.7	6.8	46.7	33.5	39.9	13.3	1.8	12.7	5.8	6.3
129	64.2	14.5	297.5	248.3	283.0	46.8	8.5	140.9	41.8	45.0	43	50	7	10.5	2.3	48.7	40.7	46.4	7.7	1.4	23.1	6.8	7.4
127	62.7	7.7	315.8	273.8	308.1	40.9	7.4	169.4	51.4	39.0	46	44	10	11.6	1.4	58.2	50.5	56.8	7.5	1.4	31.2	9.5	7.2
124	56.9	−1.8	226.3	197.4	228.1	28.9	6.3	125.4	41.3	26.2	60	35	5	15.0	−0.5	59.4	51.9	59.9	7.6	1.7	32.9	10.8	6.9
126	14.3	2.3	343.9	251.7	341.6	92.2	19.4	91.7	83.4	54.9	62	33	5	3.2	0.5	76.3	55.9	75.8	20.4	4.3	20.4	18.5	12.2
136	10.7	−28.7	173.1	122.6	201.8	50.5	10.2	83.9	29.0	28.2	45	36	19	4.2	−11.3	68.1	48.3	79.4	19.9	4.0	33.0	11.4	11.1

Table 14. INDIVIDUAL FARM RESULTS IN ORDER OF PROFIT PER 100 ASSESSED ACRES

Group Ci

	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
119	392.4	132.2	1,358.7	1,000.5	1,226.5	358.1	74.5	476.0	158.2	159.7	23	61	16	25.4	8.6	88.1	64.9	79.5	23.2	4.8	30.8	10.3	10.4
122	351.4	282.1	896.0	768.6	613.9	114.2	10.0	180.0	170.1	139.6	60	37	3	30.9	24.8	78.8	67.6	54.0	10.0	0.9	15.8	15.0	12.3
203	343.9	292.5	1,021.2	886.3	728.7	129.7	66.9	225.4	146.3	160.4	40	58	2	25.5	21.7	75.6	65.6	53.9	9.6	4.9	16.7	10.8	11.9
115	315.6	73.2	878.1	633.5	804.9	244.6	12.1	250.5	166.5	131.2	40	56	4	31.7	7.4	88.3	63.6	80.9	24.6	1.2	25.2	16.7	13.2
114	272.1	−4.8	778.4	667.9	783.2	110.5	31.1	333.7	178.4	129.5	42	49	9	29.1	−0.5	83.3	71.5	83.8	11.8	3.3	35.7	19.1	13.9
116	205.5	120.8	386.0	353.2	265.2	32.8	2.7	84.7	67.4	77.6	50	48	2	29.1	17.1	54.6	50.0	37.5	4.6	0.4	12.0	9.5	11.0
206	199.2	158.4	484.1	419.6	325.7	64.5	10.6	115.4	72.9	62.3	57	40	3	22.1	17.6	53.8	46.6	36.2	7.2	1.2	12.8	8.1	6.9
204	164.3	107.2	500.3	440.0	393.1	60.3	21.4	114.3	131.6	65.5	52	42	6	20.8	13.5	63.2	55.6	49.7	7.6	2.7	14.4	16.6	8.4
202	136.5	107.5	333.7	297.3	226.2	36.5	4.5	92.3	37.9	55.0	57	37	6	26.0	20.4	63.5	56.5	43.1	6.9	0.9	17.6	7.2	10.5
117	−68.1	−448.1	680.0	376.9	1,128.1	303.1	—	488.1	193.8	143.1	52	26	22	−9.0	−59.3	89.9	49.8	149.2	40.2	—	64.5	25.6	18.9

Table 15. INDIVIDUAL FARM RESULTS IN ORDER OF PROFIT PER 100 ASSESSED ACRES

Group Cii

	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
133	86.5	67.7	264.2	197.5	196.5	66.6	2.8	68.0	24.3	34.8	73	26	1	17.0	13.3	51.9	38.8	38.6	13.1	0.6	13.3	4.8	6.8
134	74.4	24.9	327.0	249.0	302.1	75.7	18.8	104.4	43.1	60.1	57	28	15	17.8	6.0	78.4	59.7	72.4	18.2	4.5	25.0	10.3	14.4
132	67.7	50.7	207.5	167.9	156.8	39.5	2.4	57.6	27.5	29.8	71	26	3	17.8	13.3	54.6	44.2	41.3	10.4	0.6	15.2	7.3	7.8
101	64.1	27.1	294.6	250.0	267.5	44.4	14.8	82.5	73.8	52.0	68	22	10	11.7	5.0	54.7	46.4	49.7	8.3	2.7	15.3	13.7	9.7
102	56.4	43.6	174.8	155.8	131.2	19.0	1.1	51.6	32.8	26.7	74	22	4	11.8	9.1	36.4	32.5	27.3	3.9	0.2	10.8	6.8	5.6
205	45.6	14.9	213.3	197.7	198.4	15.4	2.8	69.1	62.1	49.0	71	27	2	11.4	3.8	53.3	49.4	49.5	3.8	0.7	17.3	15.5	12.2

Table 16. SHEEP FLOCK RESULTS

Group A

Farm No.	GROSS OUTPUT PER 100 EWES AT BEGINNING OF YEAR			LAMBS BORN PER 100			LAMBS REARED PER 100			WOOL			AVERAGE PRICE RECEIVED Draft Ewes		Store Lambs	
	Sheep	Wool	Total	Ewes to Ram	Lambing Ewes	Lambed Ewes	Ewes to Ram	Lambing Ewes	Lambed Ewes	lbs. per Fleece	Value per Fleece	Value per lb.	Price	Price Fall between 1958 and 1959	Price	Price Fall between 1958 and 1959
	£	£	£	No.	No.	No.	No.	No.	No.	lbs.	s. d.	s. d.	s	s	s	s
139	337.4	99.4	436.8	106	109	110	102	104	105	4.4	15.7	3.7	67	−56	71	− 6
110	326.9	82.4	409.3	104	110	113	102	108	111	3.7	13.3	3.7	71	−18	72	− 3
107	352.4	97.9	450.3	117	124	126	115	123	124	3.6	13.1	3.8	71	−13	72	− 8
137	273.4	83.7	357.1	108	116	119	104	116	119	3.6	14.2	3.1	57	− 7	53	+ 4
201	504.6	92.4	597.0	96	105	106	89	98	99	3.7	13.7	3.8	93	−54	72	—
108	357.3	92.7	450.0	94	101	101	92	98	98	3.9	14.5	3.9	70	− 6	80	−14
112	288.3	77.8	366.1	97	100	101	95	99	100	3.7	12.0	3.6	64	−16	73	−19
106	316.4	84.7	401.1	103	104	104	99	101	101	3.8	13.0	3.6	67	−28	64	−10
109	338.6	89.8	428.4	101	110	110	94	102	103	3.7	13.4	3.8	93	−30	60	−18

Table 17. SHEEP FLOCK RESULTS

Group B

207	396.0	161.5	557.5	114	120	121	110	116	117	4.6	22.3	4.7	62	−41	—	—
123	387.3	140.9	528.2	104	114	115	95	104	105	4.0	17.7	4.5	57	−25	60	− 3
130	218.7	121.1	339.8	84	96	98	79	91	93	3.9	17.11	4.7	48	−29	55	+25
208	356.8	132.9	489.7	104	114	117	99	109	111	4.6	20.7	4.6	44	−25	71	−14
131	193.0	60.3	253.3	88	98	100	76	85	87	2.5	9.5	3.10	52	−22	51	−17
125	230.8	146.9	377.7	83	96	98	76	88	89	4.9	21.8	4.5	68	−23	61	− 1
129	213.7	79.4	293.1	84	101	111	78	94	103	3.5	13.2	3.9	71	− 6	50	−10
127	261.9	72.9	334.8	93	114	120	83	102	107	3.0	11.6	3.10	57	− 9	—	—
124	362.0	91.4	453.4	97	103	104	89	95	96	3.8	13.6	3.7	121	−17	47	− 9
126	336.9	152,2	489.1	105	110	111	104	109	110	4.5	20.0	4.5	69	−17	71	+ 7
136	138.6	65.3	203.9	67	81	83	61	73	76	3.2	9.2	2.11	57	−25	60	− 3

Table 18. SHEEP FLOCK RESULTS

Group Ci

Farm No.	GROSS OUTPUT PER 100 EWES AT BEGINNING OF YEAR: Sheep £	Wool £	Total £	LAMBS BORN PER 100: Ewes to Ram No.	Lambing Ewes No.	Lambed Ewes No.	LAMBS REARED PER 100: Ewes to Ram No.	Lambing Ewes No.	Lambed Ewes No.	WOOL: lbs. per Fleece lbs.	Value per Fleece s. d.	Value per lb. s. d.	AVERAGE PRICE RECEIVED Draft Ewes: Price s	Price Fall between 1958 and 1959 s	Store Lambs: Price s	Price Fall between 1958 and 1959 s
119	624.4	72.1	696.5	135	138	138	128	131	131	3.5	12.3	3.6	45	−34	105	−28
122	649.9	76.9	726.8	118	122	127	112	115	120	4.0	13.4	3.4	—	—	104	−33
203	583.4	111.4	694.8	135	141	143	130	137	139	4.3	19.5	4.6	53	−20	86	−40
115	523.4	57.6	581.0	113	117	122	111	114	120	3.3	12.6	3.10	54	+ 5	106	−31
114	466.9	93.8	560.7	124	128	129	120	123	124	3.9	14.8	3.9	36	−28	83	−31
116	326.6	81.1	407.7	103	108	110	97	102	103	3.8	13.4	3.6	38	−53	79	−10
206	486.2	111.3	597.5	118	126	127	114	121	123	4.3	18.5	4.4	44	−56	90	−22
204	472.2	88.4	560.6	114	118	119	111	115	115	3.6	14.3	3.11	60	−43	78	−32
202	386.2	122.3	508.5	103	117	119	98	111	113	4.6	19.4	4.3	50	−25	89	—
117	491.2	60.8	552.0	112	119	121	110	117	119	3.0	11.4	3.10	54	+ 2	104	−32

Table 19. SHEEP FLOCK RESULTS

Group Cii

133	203.1	71.8	274.9	79	89	90	73	83	83	3.3	10.10	3.3	47	−17	51	−11
134	275.3	113.1	388.4	95	110	111	90	104	105	3.6	15.0	4.2	47	−28	71	− 2
132	295.8	90.0	385.8	99	111	115	96	108	112	3.4	12.11	3.9	66	−20	75	−13
101	291.8	87.1	378.9	99	106	113	95	101	108	3.5	13.0	3.8	88	−52	51	− 1
102	246.2	97.8	344.0	91	108	110	87	103	105	4.0	13.5	3.4	71	−44	55	− 8
205	287.8	106.2	394.0	99	112	113	95	107	108	4.1	18.0	4.5	44	−69	66	−16

Some Recent Reports Published by The Department of Agricultural Economics

Report	M.39	Economics of Milk Production 1956-57. An analysis of results from 32 farms in the Northern Counties	Price 5/–
„	M.40	Milk Production from Grazing	Price 3/–
„	139.M	Herd Maintenance on North of England Small Dairy Farms A study of practices and farmers' opinions	Price 2/6
„	140.M	Productivity and Efficiency of Labour Use on Small North of England Dairy Farms	Price 5/–
„	143.M	The Effect of Herd Maintenance Policies on the Economy of Small Dairy Farms	Price 5/–
„	144.G	Attitudes to Incentive Schemes and their Importance in Agriculture	Price 2/6
„	145.G	Beef Production Case Studies	Price 2/–
„	146.FM	Hill Sheep Farming in the North of England, 1957-9	Price 5/–
„	147.G	Commercial Egg Production Financial Results of Farm Flocks for 1959-60	Price 5/–
„	148.FM	Profitability of Farming in the North of England, 1959-60 Results for Selected Groups of Farms	Price 5/–
„	149.G	Single Suckled Calf Production in Northumberland, 1959-~~60~~	Price 3/–

The above are obtainable from The Department of Agricultural Economics,
University of Durham, King's College,
8, Kensington Terrace, Newcastle upon Tyne, 2.