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Not for Publication

H.F.R.O. 178

HILL FARMING RESEARCH ORGANISATION

FARM REPORTS AND SUMMARY OF FLOCK RECORDS

1968

I FARM REPORTS - 1968

A. GLENSAUGH

Weather

November 1967 was very wet with bright sunny intervals and average mean daily temperatures. December started by being very mild, but by the second week a cold snap settled in with 7 inches of snow lying for 4 days. The cold weather continued into January with snow lying for 13 days in the first fortnight, thereafter becoming milder. February was the coldest month of the winter, it was also sunny and dry. The sunny dry weather continued into March with an improvement in the temperatures. Except for a week in the middle of April, the weather continued to be dry and sunny. The weather in May deteriorated, and the month was one of the dullest, coldest and wettest for a number of years. June and August were dry and sunny, with July wet and dull. September was dull and dry, except for the last ten days which were dull and wet, and this weather continued into October. November was dull, but the temperatures were above the seasonal average.

Weather Records November 1967 - October 1968

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp°F.
<u>1967</u>			
November	5.20	74.5	39.2
December	2.05	65.8	38.0
<u>1968</u>			
January	2.86	48.0	36.1
February	1.76	91.9	32.7
March	1.59	88.1	39.2
April	2.95	141.6	41.9
May	6.89	88.8	43.3
June	1.29	139.6	53.7
July	4.25	66.0	53.6
August	1.74	159.2	54.2
September	2.79	62.5	51.1
October	6.44	66.3	46.2
Total	39.81	1092.3	

SHEEP - Hill flock

The rams were put out on the 16th and 17th Nov. The weather was fairly broken throughout the mating period, but despite this, there was a good cover of ewes within the first two weeks and remarkably few returned to the ram.

The weather was very good for the first 16 days of lambing and some 70% of the ewes lambed in that period. Once again more emphasis was put on feeding the hill ewes in milk rather than for a long period pre-parturition. Where possible ewes with twins were run off and fed at a slightly higher level than those with singles. Lambs did well to begin with despite a later spring, but in May, which was a very bad month, both ewes and lambs suffered a severe check as the grass went back.

A pre-lambing dipping was again carried out against tick and lice in all adult stock and was once more found to be effective.

Finella was continued on the intensive system with a further increase in stock up to 371 ewes, i.e. 250% of the original stock. This included the introduction of 100 N.C. Cheviots from Sourhope which were joined by our own

remaining Cheviots from Forestry Park and run as a separate flock on East Finella.

Once again very satisfactory results were obtained as is shown in the tables at the end of the report. It was noted that the Sourhope Cheviots did not perform nearly as well as our own (105% marked as against 168.7%), but this was probably the change to Glensaugh and it is to be hoped that their performance will be better in 1969.

The Big Hill ewes with twins were retained on reseeded ground as in 1967 and this resulted in stronger twin lambs and also gave the ewes a better chance. No early weaning was carried out in 1968.

Overall it could be said to have been a good year for sheep and a record number of lambs were marked and weaned although weaning weights were slightly down on the year.

A total of 1182 lambs were weaned from the hill flock. After weaning the lambs were split into groups according to size, for sale, rape fattening, etc. and all were dosed against worms. Very few deaths occurred for the first five weeks and then a few of the smaller lambs began to fall off and die. One was taken to the Vet. in Laurencekirk and on his advice two more were taken to the V.I.O. in Aberdeen. The result of the examination was the same in all cases and showed that all three had an extremely high worm burden. A second worm dosing was immediately carried out, but before this took effect some 24 small lambs died.

There would appear to be three possible reasons for this, but it has been impossible to decide which was responsible.

- (1) There may have been a very heavy ground infestation in the field where the small lambs were grazing. This does not seem likely as it had been shut off for silage most of the summer.
- (2) The dosing compound - Nilverm - was not so effective in the dosage recommended for the lighter weights of lamb. This is possible as we had no trouble in the heavier range of weights.
- (3) The dosing gun supplied by the manufacturers of Nilverm was not sufficiently accurate in small doses.

It may of course have been a combination of all three.

Inbye flock

Because of research programme demands on cast ewes no inbye flock was run in 1968.

Disposal of lambs (12/12/68)

Ewe lambs retained for stock replacements	252
Lambs sold store	310
Lambs sold fat	325
Lambs on hand	254
Deaths since weaning	41
	<u>1182</u>

Prices

Approximately twice last years number of lambs were sold store (310 against 160) and the average price was 94/9d. This included a top of 122/- for Cheviots and 99/6d for Blackfaces. Fat lambs sold and paid for to date averaged 97/-d.

Wool/

Wool

This years wool clip was up by 697lb and the return was up by fully 40%.

1968	£1,366-5-5
1967	989-19-0
1966	846-3-9

CATTLE

At the beginning of the year the breeding herd numbered 100. During the year 1 cow died of 'Staggers', 1 was sold on Vet's. advice to Brechin Slaughter House and 8 were sold fat (cast because of age, performance, etc.).

All calves were born between mid-January and mid-April. Four calves were purchased to replace calves that died or were born dead and all were successfully reared by their foster mothers. Abortion was again present and was confirmed as Brucella. May was a bad month and both cows and calves suffered. In all 81 calves were successfully reared and presented for calf subsidy. Generally speaking calves were not so good as in the previous year and it was more difficult to select a 'top draw'.

Summary of Calf Births and Deaths

Calves born dead	Calves born alive	Calves died	Calves bought	Calves reared
4 (3 confirmed Brucella)	85	8 1 deformed 1 weak twin 1 hurt at birth 1 hairball 4 scour and pneumonia	4	81

The following table shows herd performance over the last 6 years.

Year	Cows Mated	Dead Calves	Calves died after birth	Homebred Calves reared	% Homebred Calves weaned
1963	78	9	4	61	78
1964	91	7	12	66	72.5
1965	78	2	2	66	84.6
1966	85	1	2	74	87
1967	108	3	6	92	86.1
1968	100	4	8	77	77

Rough shelter was again provided where possible for the first 10 days of the calves' lives.

Because of the bad month of May previously mentioned and its effect on the calves, it was intended to wean the calves 2 weeks earlier than usual in order to try and increase the weights at sale time. Unfortunately due to a complete breakdown in the water supply there was no water in the buildings and, in fact, the calves were not weaned until 14/10/68, some two weeks later than usual. This meant that they were outside during the first two weeks of October when some 4 inches of rain fell. Because of this it was decided to miss the usual calf sale and sell later. This worked well and very satisfactory prices were obtained. (See sales tables).

Throughout the year 7 bulling heifers and 3 in-calf heifers were bought to keep up herd numbers so that we start the 1968-1969 calving season with 100 head.

A young Aberdeen Angus bull was purchased in February 1968 and served a few heifers and small cows satisfactorily.

One of the young Hereford bulls purchased last year died of a general septicaemia. The attending veterinary surgeon could give no satisfactory reason or suggestion as to why this should have happened.

The following tables show liveweights, weaning weights, sale weights etc., together with prices attained throughout the year.

Live weight of cows 29/11/68

Breed	Number	Av. Wt. in lb.
Galloway	5	1071
SH x Galloway	36	1038
Aber/Angus Crosses	26	1031
SH x Highland	6	994
SH. Crosses	5	1041
Hereford Crosses	8	1038
Luing	5	957
SH x Highland (in-calf heifers)	3	961
Hereford Crosses (in-calf heifers)	7	808

This year owing to labour difficulties cow weights were taken nearly a month later which may account for the lower range in weights. The Hereford Cross heifers are a year younger than the SH x High. heifers.

Weaning Weights of Calves 14/10/68

Sire	Male		Female	
	No.	Av. wt (lb)	No.	Av. wt (lb)
Hereford	25	445	22	425
Aberdeen/ Angus	21	432	13	403

Cattle Sales, Weights and Prices

Time	Centre	No.	Sex	Pre-Sale Weight (lb)	Price
March	Edzell	9	B.	686	£ 69 16 0
"	"	9	H.	672	63 11 0
April	"	8	B.	714	76 10 0
"	"	6	H.	700	69 10 0
"	Laurkirk.	3	B.	644	61 10 0
"	"	6	H.	700	65 5 0
July	"	4	B.	728	74 6 0
"	"	7	H.	672	62 0 0
Sept.	"	1	B.	868	80 0 0
"	"	8	CC.		56 2 0

Calf Sales, Weights and Prices

Time	Centre	No.	Sex	Pre-Sale Weight (lb)	Price
Nov.	Laurkirk.	4	B.	560	£ 55 10 0
"	"	2	B.	560	53 10 0
"	"	1	H.	560	49 10 0
Dec.	"	9	B.	560	54 8 0
"	"	4	H.	560	53 10 0
"	"	2	H.	546	47 10 0

B = Bullock
H = Heifer
CC = Cast Cow

Cropping

<u>Roots and Greencrop</u>		<u>Grass</u>	
Potatoes	2.20	Hay	0.00
Turnips	15.00	Silage	92.00
Kale	8.00	Grazing	170.00
Rape	47.00		
	<u>72.20</u> acres		<u>262.00</u> acres

As has been the practice for the last few years, no grain crop was grown and 100 acres of barley straw were purchased and baled with our own baler. Fortunately the farm we purchased from was early with harvest and all straw was baled and carted home by the 14 September before the weather broke. The grass for silage and hay was a good crop, but owing to bad weather it was decided to make it all into silage rather than be caught with hay lying in the bout. Approximately 500 tons of Silage were made. This year some 4 acres of the turnip break were sown at 7 inch spacing with the precision seeder and not hoed. The pigeons and the wet weather followed by a dry spell were against this and despite scarifying weeds came up later and it is estimated that little more than a 50% crop has resulted. Kale was a good crop and as usual will be fed off to home wintered Hogs. The potato crop in common with most of this district was very poor, this was possibly due to the wet cold May when there was no growth and the variety, Kerr's Pink, did not get the length of growing season necessary to bulk.

Heather burning

Due to periods of high winds it was not possible to burn on Finella even with the breaks burned in 1967. Two good fires on the other side of the farm enabled us to burn about 40 acres between Big Hill and the Cairn.

Fencing

Apart from repair work no fencing was carried out in 1968.

Water Supply

The private water supply on the farm has given trouble since summer time and a considerable amount of time and money have been and will be expended before this is satisfactory.

B. LEPHINMORE

Weather

November 1967 was a good month and tups went out in mild conditions. On the whole tugging weather was good although the third week was partly very cold with frost and snow showers from the North. This weather continued into January and was broken by the hurricane on the 15th. The remainder of the month was mild with heavy rain at times. February was cold with frozen snow lying on the hill throughout. The first half of March was mild and dry, followed by snow, sleet and hail showers to the end of the month, with days of heavy rain.

Spring was cold and late, but fortunately the first two weeks of lambing were dry, sunny and warm. A cold May was followed by the best summer on record. Drought conditions prevailed in August with much needed rain falling on the 13th, followed by another warm sunny spell. The first half of September was mild with heavy rain at times and a good second half was followed by a wet two weeks in October. Thereafter the weather was mainly dry and mild to the end of November.

Rainfall - November 1967 - October 1968

<u>1967</u>	<u>Inches</u>
November	5.49
December	6.35
<u>1968</u>	
January	6.98
February	3.45
March	6.06
April	2.88
May	3.62
June	3.45
July	3.31
August	2.76
September	9.48
October	9.13
	<u>62.96</u>

SHEEP

The majority of ewes were in good condition in November 1967, with Low-End superior to Midhill and Barnacarry. A hard winter, particularly February, followed by a late spring brought ewes through to lambing in very lean condition. The situation was relieved by warm sunny weather during the first fortnight of lambing.

At weaning, Midhill and Low-End ewes and lambs were in excellent condition. On Barnacarry both ewes and lambs were in poor condition by comparison. Overall percentage weaned was 70.

Figures for previous years were:-

1967	80%
1966	78%
1965	82%
1964	83%
1963	69%

Store lamb prices were high compared with recent years.

Forty-five top wether lambs were sold in late August at 94/6d per head and 52 seconds at 79/- per head. In September 42 wether lambs were sold store at

88/- per head and 37 ewe lambs at 67/- per head.

A further 50 wether lambs were sold store in October-November at an average of 68/- to a top of 91/-. Thirteen ewe lambs fetched 50/-.

Seventy-one lambs were sold through FMC and averaged 85/5d at the following grades and weights:-

- 44 Grade A @ 28.2 lb dead wt. @ 3/4d per lb.
- 14 Grade B @ 25.3 lb dead wt. @ 3/2d per lb.
- 13 Grade C (incl. 2 rejects) @ 24.5 lb dead wt. @ 2/5³/₄d per lb.

Seventy-nine draft ewes (6¹/₂ yrs) were sold privately in October at 80/- per head. A further 85 ewes of mixed ages were sold at an average price of 54/6d per head. The relatively large number of ewes sold this year resulted from a reduction in stock count on both Midhill and Barnacarry. In the case of the latter, numbers had been increased over the last two years by the retention of the 6¹/₂ yr old age group from a further year; this year the stock was brought back to its normal regular ages by drafting the 6¹/₂ and 7¹/₂ yr old ewes.

Hogg Wintering

Midhill hogs were again wintered at Point Farm, Ardnamont, returning on 11 April.

Low-End hogs were home-wintered on the low ground until 11th March, when they returned to the hill. A supplement was offered over the winter at the following rates:-

- 22 January - 15 February - $\frac{1}{4}$ lb/head/day Bruised Oats
- 16 February - 11 March - $\frac{1}{2}$ lb/head/day home mixture:
 - ($\frac{1}{3}$ Bruised Oats
 - ($\frac{1}{3}$ Bruised Barley
 - ($\frac{1}{3}$ Ewe Pellets
 - (12% Protein)
- 12 March - 16 April approx.- $\frac{1}{4}$ lb/head/day Ewe Pellets (fed on hill with ewes)

Barnacarry hogs were hill wintered until the end of February when they were brought in to the low ground fields. A concentrate supplement was offered from 5 March until 8 April, the hogs returning to the hill thereafter. Feeding level was $\frac{1}{4}$ lb/head/day.

Prices

Year	Fat Lamb			Store Lambs				Draft Ewes	
	No.	Carcass Wt (lbs)	Price Per Head	Wethor lambs		Ewe lambs		No.	Price Per Head
				No.	Price	No.	Price		
1960	85	27.5	78/6	235	65/-	99	43/-	56	60/-
1961	133	28	90/-	235	79/-	90	42/6	59	51/-
1962	94	27.5	81/3	217	82/6	73	68/-	43	62/-
1963	127	27.75	85/9	147	82/6	63	55/6	75	64/-
1964	111	27.75	83/3	238	80/-	83	67/6	45	73/-
1965	188	24.5	67/-	241	66/9	37	68/-	54	73/6
1966	216	26.6	68/5	253	60/3	59	43/-	53	47/-
1967	198	28.2	79/5	313	70/-	51	48/-	61	61/-
1968	71	27.7	85/5	255	82/9	58	65/-	79	80/-

Lamb Sales and Reconciliation by Hirsal

	Barnacarry	Low-End	Midhill
No Sold store (wethers)	36	48	106
Sold dead wt.	22	11	38
Sold store (ewe)	15	19	18
Retained	14	-	4
Retained for stock	54	55	98
Dead	1	-	2
No weaned	142	133	266
Av. price wether lambs	77/6d	87/-	83/-
" " ewe lambs	58/-	65/-	70/-

Revenue by Hirsal (Lambs, cast ewes, wool)

	Barnacarry	Low-End	Midhill
	£	£	£
Lamb Sales	268	318	657
Ewe Sales	170	118	260
*Wool Sales	156	186	340
Total	594	622	1257
∕ Gross Revenue per ewe excluding subsidies	56/-	65/-	67/6d

* Inclusive of interest payments

∕ Excludes lambs retained and 20 ewes cast but retained on Midhill

Supplementary feeding

Thirty-three Midhill lean ewes were kept in-bye after tugging and fed from 9 January at a level of $\frac{1}{2}$ lb/head/day. On 31 January a further 35 lean ewes were drawn off and fed at the same level. The 68 lean ewes grazed in F.8 up to 15 February and thereafter on the downfall (Phase I) returning to the hill (800 acres) on 10 April where feeding was continued until 15 April. The remainder of the Midhill ewes were fed on the hill from 4 March-15 April.

Hirsal	Feeding Period	Concentrates per head	Cost per head
Midhill	4 March/15 April	11 $\frac{1}{2}$ lb	3/10d
" (lean ewes)	9 Jan/15 April	28 $\frac{1}{2}$ lb	9/6d
Low-End*	1 March/15 April	15 lb	5/-

The concentrate was a proprietary ewe nugget (12% Protein) costing slightly under 4d per lb on the farm. Feeding costs per head are exclusive of transport charges to the hill and labour.

* Eleven Low-End lean ewes were fed in-bye from 29 January.

In-Wintering of Barnacarry Ewes 1968

One hundred and twenty-four ewes out of a total of 212 were in-wintered from 26 February until after lambing. The remainder were wintered on the hill with no supplementary feeding. Selection of in-wintered ewes was based on condition. The ewes in best condition were returned to the hill. The majority of ewes were very lean at this time as a result of their lack of condition in late autumn and also the severe February weather. Before housing, ewes were treated for worms as were those which returned to the hill.

Average weights of gimmers and a sample of ewes are shown:-

	No.	18/11/67	26/2/68	11/3/68	18/3/68	1/4/68	13/4/68
Ewes	19	46.3 kg.	36.4	41.4	43.4	44.2	46.2
Gimmers	38	42.5	32.4	35.4	-	38.7	40.8

Feeding rates were:-

26	February/15	April	- 2 lb hay + $\frac{1}{2}$ lb concentrates
16	April	- lambing	- 2 lb hay + 1 lb concentrates

Three concentrate mixtures were used

- (1) Bruised Oats + 10% Fish Meal
- (2) Whole Oats + 10% " "
- (3) Whole Maize + 10% " "

Feed costs were approximately 27/- per ewe.

Lambing took place in the shed and ewes and lambs were turned out to grass 3-4 days later, returning to the hill when lambs were 7-10 days old.

	No.	No. Lambs Marked	%	No. Lambs Weaned	%
Housed ewes	124	88	71	83	67
Hill ewes	87	64	73	59	68

HILL CATTLE

Thirty-six cows were overwintered and feeding commenced on 5 December. Hay feeding stopped on 10 May, concentrates were fed until 25 May. Total feed per cow was $16\frac{1}{4}$ cwts hay plus 4 cwts concentrates at a cost of £18:15:6d (hay valued at £14 per ton; concentrates at £37 per ton defined on form).

Thirty-one calves were reared, two calves died at birth and three cows were barren. Just before weaning four calves fell over a sheer rock face at Barnacarry. One was killed outright and two subsequently slaughtered. The fourth is being overwintered.

Eleven bullocks were sold at Dalmally in October at an average price of £36:8:-d. Seventeen heifers are being wintered to provide a selection of 2nd x heifers for herd replacements.

Calf Weaning Weights (1967 *i.i.* x; 1968 Polled Beef Shorthorn x)

	No.	Oct. 1967		No.	Oct. 1968	
		Wt. lb.	Wt. kg.		Wt. lb.	Wt. kg.
Heifers	15	438	199	17	404	184
Bullocks	16	482	219	11	467	212

<u>Hill Cows</u>		<u>Deaths</u>	<u>Sales</u>	<u>Hill Cows</u>	
No.	Oct. 1967 Wt. lb. Wt. kg.			No.	Oct. 1968 Wt. lb. Wt. kg.
36	988 449	-	-	36	963 438

ARABLE GROUND

Fields 3, 5 North and 2 were cut for hay. An estimated total of 38 tons was made from 19 acres. Despite the exceptionally dry season, hay did not 'make' quickly due to the very calm weather which prevailed for much of the summer. Nevertheless, the whole crop was secured under almost ideal conditions with the minimum of effort. All hay was barn dried in the bale and drying costs (electricity only) averaged 17/- per ton.

Field 4 was re-seeded with a general purpose mixture in late August.

Heather Burning

Suitable burning conditions occurred only towards the end of the permitted period in April. About 10 acres were burned on the Low-End hirscl. Unfortunately the most suitable weather occurred at Easter when the Forestry Commission staff was on holiday and consequently no burning was possible.

Regeneration

Approximately 10 acres of Midhill downfall were re-seeded in July with a mixture per acre of:-

8 lbs Cert. S59 Red Fescue
10 lbs Cert. S23 Perennial Ryegrass
1 lb Kent Wild White Clover

The reseed was a partial failure due to the drought conditions which followed seeding and subsequent germination was mainly of clover.

Three cwts per acre of a compound fertiliser was aerielly sown by helicopter on the reseed area, a total of 17 acres in all being top dressed at a spreading cost of 38/- per acre. Spreading time was approximately 45 minutes.

Drainage

One hundred chains of open drains were cut on the downfall (Phase I) and a further 100 in Phase II.

Fencing

Approximately 70 acres of Low-End 'downfall' were fenced off in the spring by the erection of a cross fence of 7 high tensile plain wires with stobs and droppers, from Phase II on the Midhill to the Low-End forestry plantation fence.

An additional wire was added to the 6 wire fence round Phase II on the Midhill as it was not completely sheep proof.

Two stock grids were sited on the hill road, one at the exit gate from the downfall and the other at the entrance gate to Phase II.

The rough area ($1\frac{1}{2}$ acres) adjacent to Field 7 at the North end of the arable ground has been enclosed by the erection of a roadside fence and two shore fences (one at the South end of the arable fields). An access road has been built and the enclosure will be used as a wintering area for the hill cattle.

N.B. Over the past years cattle policy in winter has been to feed on areas which are likely to be improved by so doing. The tup park was treated in this way in 1957/1958 as were subsequently the Midhill downfall (Phase I) and Phase II. By 1967 all accessible areas had been exploited for winter feeding.

It is hoped that the 'shore enclosure' will go some way towards solving a wintering problem which has become more acute as a consequence of the sward improvement occurring on the lower slopes adjacent to the farm steading.

C. SOURHOPE

Weather

As 1967 came to a close there was a change to drier conditions than those experienced earlier. After a mild start to the year a period of snow set in and with snow cover persisting above 1000' for over 4 weeks, sustained hand-feeding of the ewes was necessary. Thereafter and to the close of lambing the weather remained reasonably open. Early summer proved wet and cold and indeed throughout mid and late summer there were very few periods, and these of only short duration, when dry sunny conditions prevailed. Thus, hay making proved difficult. Autumn has proved to be both mild and dull with a noticeable lack of sunshine.

Weather Records, November 1967 - October 1968

Month	Rainfall (inches)	Sunshine (hours)	Mean daily air temp. °F.
<u>1967</u>			
November	7.01	72.8	40.9
December	2.09	42.6	37.6
<u>1968</u>			
January	1.05	34.5	36.1
February	3.49	84.5	32.3
March	2.15	76.3	40.1
April	2.51	179.7	43.5
May	3.68	137.8	44.9
June	1.89	226.4	55.3
July	6.45	96.7	53.9
August	2.15	142.7	55.3
September	3.95	84.6	52.9
October	3.98	60.9	50.6
1967-68	40.40	1239.5	
1966-67	41.58	1282.5	
1965-66	40.86	1106.5	
1964-65	34.54	1238.1	
1963-64	30.18	1094.1	
1962-63	38.72	1254.7	
1961-62	33.28	1160.1	
1960-61	29.01	1189.4	
1959-60	47.7	1296.7	
1958-59	21.0	1570.7	
10 Year Average	35.73	1243.2	

SHEEP

Sheep came through the winter in satisfactory condition, the stock ewe hoggs having been shed off only during tugging and brought on to hand feeding in this period. Sheep on all hefts were fed concentrates as lambing approached and the total cost of hay (£12 per ton) and concentrates (£30 per ton) fed per sheep was on average 10/-, with a range for individual hefts from 8/5d to 11/7d. This compared with an overall average cost of 6/8d per head in the previous winter.

All ewes were worm-drenched prior to lambing and also tick-dipped and lambing proved straightforward. A new lambing park for the Luchope ewes proved ideal, although the attempt to lamb both sides of the Schil Blackface stock was

less than satisfactory. The overall weaning percentages for South Country Cheviots, North Country Cheviots and Blackface ewes were 85, 102 and 90 respectively. The weaning percentage of the Fasset Blackface ewe stock was outstanding, with the greater proportion of the ewes rearing twins. These ewes which had been taken off experiment in the summer of 1967, and which had received whilst on experiment heavy hand feeding, were in excellent condition when joined with the tups in autumn 1967. The Fasset South Country Cheviot stock which had received exactly the same treatment whilst on experiment, failed to produce an outstanding result, though it must be pointed out that whilst the Blackface gimmer age had been transferred to Glensaugh in the autumn of 1967, the South Country Cheviot ewe stock included 23 gimmers. The disappointing weaning figures for Schil were in part due to unsatisfactory lambing conditions, one result of which was a bad outbreak of Navel ill in the lambs.

Disposal of Lambs

No private sale of lambs on a live-weight basis could be arranged this year. The bulk of lambs was sold through the store market; 233 South Country Cheviot lambs averaged 76/8d, 163 North Country lambs averaged 85/5d and 212 Blackface lambs averaged 56/- to give an overall average for 608 store lambs of 72/-. In addition, 151 lambs (128 Cheviot and 23 Blackface) were sold fat to average 110/-. Total income for 757 lambs is thus £3005 compared with £2720 for 811 lambs in 1967.

Details of disposal of the 1968 lamb crop are as follows:-

Ewe lambs retained as stock replacements	408
Wether lambs retained on experiment	44
Lambs on hand (31/12/68)	54
Lambs sold store	608
Lambs sold fat	151

Of the 54 lambs on hand, 41 are surplus ewe lambs which are being over-wintered with a view to a number of these being kept as potential breeding stock.

Average draft ewe prices were:-

South Country Cheviot 6-year-old	84/6d
North Country Cheviot 6 and 7 year old	97/6d
Blackface 6-year-old	70/-

Sheep stock autumn 1968

In the early autumn the Auchope and Schil ewe stocks were worm drenched as they were noticeably poorer in condition than the rest of the ewe stock. This appeared beneficial and at tupping time, during which the weather has been good, all ewes were in satisfactory condition.

Muirburn

In the spring of 1968 some 400 acres of Nardus and Molinia dominant sward on the Rigg and Gairs hofts were burnt.

Cropping

Thirty-five acres of grass were cut for hay.

Buildings

Alterations were completed to the Farm Manager's house and further general maintenance work was carried out both to the farm buildings and to the farm road.

Fencing

A total of 5336 yds of March fence has been renewed. In addition there

has been an extensive fencing programme in connection with the development work.

Development Work

Reference will already have been made to the initiation of large scale Development Projects at Sourhope. Real progress has been made in getting the first of these projects under way on the Hairney Law and Auchope, with the first two enclosures being fenced off in early June 1968. One thousand one hundred yards of Barrier electric fence and 1240 yds of Australian-type spring fencing has been used for this purpose. In addition some 670 yds of Broad fencing has been renewed around the Auchope fields to facilitate this work.

Individual sheep identification has been completed on almost the entire ewe stock after a 2 year lapse in recording, and full records are now being kept for the N.E.H. Law and Auchope sheep stocks.

The wether stock is being wintered away from the farm and when they are brought back in late March, they will not return to the Far-end Hairney Law, but will be allocated other ground.

II SUMMARY OF FLOCK RECORDS FOR 1967-68

A. GLENSAUGH

Table 1

Reconciliation of Ewe Numbers 1967-68

Heft	Ewes & Gimmers at Nov. 1967	Cast Ewes	Transfers out	Deaths	Gimmers Brought in	Purchases	Transfers In	Ewes & Gimmers at Nov. 1968
Cairn	90	-	-	2	-	-	-	88
<u>Finella</u>								
(a) East Finella	116	5	-	5	23	-	-	129
(b) Mid Finella	140	9	25	5	44	-	-	145
(c) West Finella	115	-	-	1	-	-	-	114
<u>Forestry Park</u>	61	2	-	3	17	-	-	73
<u>Big Hill</u> (including Lewis)	525*	40	325 To Expt A/C	23	118	-	180	435*
<u>Research Programme</u> Cast Sheep includes own and purchased	Nil	-	282	4	-	85	350	149
Flock Total	1047	56	632	43	202	85	530	1133

*525 included sheep for research A/C.
435 is the true hill stock figure for 1968-1969.

Table 2

Lambing Percentages 1967-68

Heft	Ewes to Ram. Nov. 1967	Lambs Marked		% 1967 Marked	% Weaned 1968
		Total	% Marked		
Cairn	90	94	104.4	82.6	101.1
<u>Finella</u>					
(a) East Finella	116	132	113.8	107.3	110.4
(b) Mid Finella	140	211	150.7	147.5	147.1
(c) West Finella	115	166	144.4	127.1	143.5
Forestry Park	61	83	136.1	158.7	132.2
<u>Big Hill</u> (includes Lewis, shed etc.)	(433	535	123.6	103.0	118.2
	(90 To research A/C for slaughter not lambed.				
Flock Total	955	1221	127.9	114.0	124.8

GLENSAUGH

Table 3

Weights of Ewes and Gimmers (kg)

1967-68

Heft	Ewes		Gimmers	
	Nov. 1967	Nov. 1968	Nov. 1967	Nov. 1968
Cairn	49.3	50.2	49.8	No gimmers
<u>Finella</u>				
(a) East Finella	-	63.6	-	51.0
(b) Mid Finella	62.0	61.7	53.1	51.5
(c) West Finella	59.6	58.0	55.7	No gimmers
Big Hill	-	Sheep involved in varying feed levels	45.9	38.8
Forestry Park (Lochhills)	63.2	60.8	56.2	52.2

B. LEPHINMORE

Table 1

Reconciliation of Ewe Numbers 1967-68

Hirsel	Ewes and Gimmers Nov 1967	Ewes		Deaths* Nov./Nov.	Gimmers Brought in Nov. 1968	Ewes and Gimmers Nov 1968
		Draft	Cast			
Barnacarry	211	46	13	14 (2)	47	185
Low-End	191	33	-	13 (4)	54	200
Midhill	372	51	44	31 (8)	95	340**
Total	774	130	57	58(14)	196	725

* Inclusive of Black loss (noted in brackets)

** One ewe transferred to Low-End

Table 2

Lambing Percentage 1967-68

Hirsel	Weaning Weights				Marking %			Weaning %		
	Singles		Twins		No.	%	%67	No.	%	%67
	No.	Wt.lb. (kg.)	No.	Wt.lb. (kg.)						
Barnacarry - housed	74	58.9 (26.8)	4	66.0 (30)	88	71	75	83	67	76
- hill	52	58.8 (26.7)	4	61.0 (27.7)	64	73	-	59	68	
Low-End	122	64.5 (29.3)	6	50.8 (23.0)	138	72	87	133	70	74
Midhill	250	60.2 (27.4)	12	62.0 (28.1)	283	76	85	266	71	81

Table 3

Weights of Ewes and Hoggs (kg) 1967-68

Hirsel	Ewes*		Hoggs		
	Nov. 1967 kg.	Nov. 1968 kg.	Oct. 1967 kg.	April 1968 kg.	Nov. 1968 kg.
Barnacarry	47.5	47.0	-	24.2	-
Low-End	46.2	49.2	-	26.8	42.9
Midhill	43.5	45.6	28.2	28.6	39.9 6

* Excluding gimmers

~~6~~ Excluding 28 gimmers running on downfall and Phase II during the summer.

Av. wt. of 28 gimmers = 48.4 kg.

C. SOURHOPE

Table 1

Reconciliation of Ewe Numbers 1967-68

Heft	Ewes & Gimmers Nov. '67	Cast Ewes	Deaths Ewes & Gimmers	Gimmers brought in	Hoggs born '68	Ewes & Gimmers Nov. '68
<u>S.C.C.</u>						
Fasset	94	12	3	28	29	107
Rigg	152	18	9	59	51	184
Gairs	170	20	8	44	49	186
Park Law	115	25	5	30	27	115
Auchope	216	38	10	55	55	223
S.C.C. Total	747	113	35	216	211	815
<u>N.C.C.</u>						
Park Law	115	26	4	30	29	115
Hairney Law N.E. In fields	171	9+46	8	67	63	175 46
N.C.C. Total	286	35	12	97	92	336
<u>B.F.</u>						
Alderhope	186	23	9	47	45	201
Banks & Brow	180	25	8	48	32	195
Fasset	58	1	1	31	28	87
B.F. Total	424	49	18	126	105	483
Flock Total	1457	197	65	439	408	1634

Forty-six Draft ewes cast from Hairney Law are being kept as stock in fields.

In addition to the above flock total there are the following spare ewe hoggs:-
23 S.C.C. (some are X N.C.C.), 9 N.C.C., and 9 B.F.

SOURHOPE

Table 2

Weaning Percentages 1968

	Ewes to Tup	Lambs Weaned	Percentage
Fasset S.C.C.	94	88	94
B.F.	58	87	150
Total	152	175	115
Park Law S.C.C.	115	93	81
N.C.C.	115	127	110
Total	230	220	96
Schil B.F. Alderhope	186	148	80
Banks & Brow	180	146	81
Total	366	294	80
Rigg S.C.C.	152	118	78
Gairs S.C.C.	170	134	79
Auchope S.C.C.	216	199	92
Hairney Law N.C.C.	171	165	96
S.C.C. Total	747	632	85
N.C.C. Total	286	292	102
B.F. Total	424	381	90
Farm Total	1457	1305	90

Table 3

Wether Stock at November 1968

Breed	Year of Birth						
	1961	1963	1964	1965	1966	1967	1968
S.C.C.	2		2				
N.C.C.				33	30	31	
B.F.		9	7	29		(12)	
S.C.C. X N.C.C.							44*

() B.F. Wethers for Dr. Field, Moredun.

* Only some of these will be kept as stock.