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HILL FARMING RESEARCH ORGANISATION

FARM REPORTS AND SUMMARY OF FLOCK RECORDS

1969

I FARM REPORTS - 1969

A. GLENSAUGH

Weather

November 1968 was very dull with temperatures above the seasonal average. The mild weather continued into December, it became colder towards the end of the month, with snow lying between 27th and 31st. January proved to be very wet with average temperatures. February was the coldest month of the winter with snow lying for 23 days. The cold weather continued into March with snow lying for 14 days. The first 3 weeks of April were sunny and dry, however the fourth week was very wet and dull. This dull, very wet and cold weather continued into May which was the wettest month of the year with 7.23 inches of rain. June was a sunny, warm and fairly wet month. July, August, September and October were very sunny, warm and dry.

Weather Records November 1968 - October 1969

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp°F.
<u>1968</u>			
November	3.13	26.5	40.3
December	4.55	22.3	36.8
<u>1969</u>			
January	6.93	39.1	37.8
February	3.71	72.9	30.8
March	2.03	87.0	34.3
April	3.96	141.8	41.1
May	7.23	84.6	45.0
June	3.65	159.9	53.7
July	2.12	184.4	57.3
August	2.35	131.5	57.5
September	1.32	102.7	52.5
October	1.24	83.1	51.2
Total	42.2	1131.8	

SHEEP

The rams were put out on the 18th November and taken in on the 23rd December. During this five week period it rained on 26 days. Mating appeared to go well, but at lambing time it was found that there was a greater spread than in the previous year.

January was very wet with rain on each of 26 days, and a total for the month of 6.93 inches. February was the coldest month for several years with an average air temperature of 30.65 and it rained or snowed on 22 days with a snow cover for 23 days. The weather during these two months did both the ewes and the cows a lot of harm and despite light storm feeding, body condition in the ewes fell off considerably. Routine feeding of a hill nut was started some 14 days earlier than in 1968, but despite this and the the fact that approximately 15/-d of extra feeding per ewe was supplied, they came to lambing in poorer condition than in 1968.

The main lambing commenced on the 12th April and the weather, which had been reasonable during the first part of the month, deteriorated and out of the lambing period there was sleet or rain for 32 days. This in itself was bad enough, but there were two days when well over an inch of rain fell and another three days each with almost .75 inch rainfall.

As a result of the condition of the ewes and the weather, lamb mortality was high and the death in the ewes and particularly in the Big Hill gimmers was considerably higher than normal.

May was the wettest month of the year with 7.23 inches of rain and no growth. This prevented the lambs getting off to a good start and a few more dropped off during this period. Also at this time some losses due to foxes occurred and on Finella some 20 lambs were never found. It is, however, impossible to say whether the foxes were taking live lambs or those just newly dead. Ten foxes (5 adult and 5 cubs) were eventually killed on the farm or within a few hundred yards of it on Forestry Commission ground.

Routine pre-lambing dipping against tick and lice was again carried out and found to be effective. All lambs were worm dosed during the summer and again at weaning.

Finella was continued on the intensive system with a further slight increase in ewe numbers from 371 up to 386. Performance figures were again good in terms of lambs born, but weather and the other factors mentioned reduced the output very considerably, despite this, on the lower plane of production, the intensive system maintained its advantage over the open hill. Figures for the individual hefts are given in the table at the end of the report.

1969 was certainly not a good year for hill sheep in this area, with lamb numbers down and winter feed costs much higher than normal. Store sale prices for the B.F. lamb were no greater per lb than in 1968. Cheviot prices were well ahead of the Blackface, particularly at the later sales, when the price gap widened to over sevenpence per live lb. Fat trade has been fairly good throughout.

Of the 929 lambs marked 882 were weaned.

Disposal of lambs

Ewe lambs retained for replacements	236
Lambs sold in store ring	271
Lambs sold fat	216
Lambs on hand (15/12/69)	140
Deaths since weaning	19
	<u>882</u>

Prices

This year 189 B.F. wethers were sold store to average 94/- (Top 110/6). Thirty-six B.F. ewe lambs made 98/6 and 46 Cheviots averaged 129/-. Lambs sold fat and paid for so far have averaged 104/6.

Wool

This years wool clip was down by 950 lb.

<u>Value</u>	
1969	£1,058-15-0
1968	£1,366- 5-0
1967	£ 989-19-0
1966	£ 846- 3-0

CATTLE

At the beginning of the year the herd numbered 100. During the year 3 were sold as casualties, 1 was sold to Brechin slaughter house on veterinary advice, 1 was drowned in a bog during a blizzard, 2 were sold fat and a further 4 will be sold fat next week. Only 3 replacements were purchased throughout the year and these together with a homebred heifer means we start the 1970 calving with 93 head.

The 1969 calving at Glensaugh must be the worst on record when 33 calves were lost. This included abortions, mechanical deaths during storm and deaths

from various other causes. The whole problem has been the subject of a separate report in conjunction with the Agricultural College and our own Veterinary Officer and it is not proposed to deal with every aspect again in this report.

The three main causes would appear to be as follows:

- (1) Possibly some degree of undernourishment during the last months of pregnancy due to a poorer quality of silage being made in the wet summer of the previous year. By the time the 4 lb. supplement of Hill Cattle Nuts was started the unborn calf may have suffered. This would account for the weakly calves amongst the early calvers, but should not have affected the later ones as they had been on the higher plane of nutrition for three months before calving.
- (2) The presence of Brucella Abortus in over 60% of the cows. This would certainly account for the abortions and may also have been responsible for several 8-9 month calvings with a correspondingly weaker calf. Even in full term gestations the presence of Brucella can effect the viability of the calf.
- (3) Finally the weather, when we had rain, sleet or snow together with low temperatures over almost the entire calving period. Rain, sleet or snow actually fell on 38 days out of the first six weeks of the period and the calves never had a dry bed. During the worst of the weather the courts were cleared of stirks and 31 cows with the weakest calves were crowded inside and no losses were sustained there, while outside the mortality pattern continued unchanged.

In all probability it was due to a combination of all three factors and possibly in a reasonable spring, the death rate would have been no greater than normal had the calves got off to a better start.

Only 58 calves were reared in 1969.

A breakdown of calf deaths as follows:

- 5 calves cast, not found but presumed Brucella
 - 1 malformed calf
 - 2 trampled at woodside during blizzard (mechanical death)
 - 1 found dead at same period (premature?)
 - 1 cow and calf lost at calving during blizzard (drowned in bog)
 - 2 twin calves, 1 dead at birth, 1 died a few days later
 - 3 one died outside shortly after birth, two died inside while being treated by Veterinary Surgeon
 - 7 sent to V.I.O. Aberdeen for P.M. after local Veterinary Surgeon in attendance
 - 4 sent to local Veterinary Surgeon for P.M.
 - 4 died during Veterinary treatment for Pneumonia
 - 3 died later, P.M. showed Hairball in 2, the other was drowned
- 33

In addition to this we were doubtful about 2 cows which we thought had cast calf out on the open hill in early November and which were subsequently classed as eild.

Reports from the Veterinary Investigation Centre at Aberdeen failed to show any consistent picture.

Live Weight of Cows

Breed	Number 969	Av. Wt. in lb.	
		1969	1968
Galloway and Galloway Crosses	35	1,126	1,040
Aber/Angus Crosses	24	1,116	1,031
Shorthorn x Highland	7	1,050	994
Shorthorn Crosses	5	1,127	1,041
Hereford Crosses	14	1,134	1,038
Luing	5	1,169	957
In-calf heifers	3	959	808

Weaning Weight of Calves 21/10/69

Sire	Male		Female	
	No.	Wt. in lb.	No.	Wt. in lb.
Aber/Angus	12	425	8	355
Hereford	9	476	28	445
Shorthorn	-	-	1	455

Cattle Sales, Weights and Prices

Date of Sale	Centre	No.	Sex	Pre-sale Wt. (lb)	Price
5/4/69	Edzell	22	B	658	£69 1 0
5/4/69	Edzell	16	F	616	£62 0 0
26/4/69	Laurkirk.	5	B	644	£65 3 0
26/4/69	Laurkirk.	5	F	630	£63 11 0
14/6/69	Laurkirk.	4	B	665	£70 10 0
14/6/69	Laurkirk.	4	F	672	£67 7 0
18/6/69	Laurkirk.	3	F	728	£69 4 0

B = Bullock F = Heifer

1969 - Because of lower numbers no calves have yet been sold.

Cropping 1969

<u>Roots and Greencrop</u>		<u>Grass</u>	
Potatoes	2.25	Hay	39.00
Turnips	12.75	Silage	82.00
Kale	8.00	Grazing	156.00
Rape	34.00		
			<u>277.00</u> acres
	<u>57.00</u> acres		

The usual practice of purchasing 100 acres Barley straw was continued and it was all baled and secured in good condition, as was the general rule in this area the bulk was very much less than in previous years and we start the winter with some 2,000 bales less than last year. This will mean some fairly careful rationing of the straw throughout the winter.

After the initial application of fertilizer in the spring (mid April) some 11 inches of rain fell in the next six weeks and a considerable nitrogen loss was sustained. To counteract this a second application of 40 units N was given to most of the grassland in early June. Hay crops were light but secured in fairly good order. Silage cuts were better than the hay, but not up to the usual bulk. It is estimated that 60 tons hay and 400 tons silage were made. As a consequence of the late spring, cultivations of the turnip break were late and only yellow turnips were sown this year. These came on well and a satisfactory crop obtained. Rape and Kale were about average although the Kale was inclined to be weedy in parts. The potato crop was good at the higher and drier end of the field but poor in the wetter areas.

Heather burning

This year weather conditions were completely against making muirburn and no burning was carried out.

Fencing

Apart from routine repair work no new fencing was carried out in 1969.

Water supplies

As was mentioned in last year's report, the private water supply on the farm had been giving trouble and now 5 cottages and 2 fields have been connected to the public supply which passes through the farm.

Buildings

A start has been made by Atcost on the extension to the silage shed which is to give us additional hay and straw storage.

B. LEPHINMORE

Weather

November 1968 was mainly dry and mild. Topping weather was on the whole excellent. However, the second half of December was cold with frost and snow at times. In January heavy snow fell on the 5th, followed by hard frost for 3 days. Otherwise January was mild and settled apart from occasional bad days. February was mainly cold with snow lying on the hill tops, but mild in the last week. March began well, but most of the month was bitterly cold with East winds.

As in 1968 no real spring weather was experienced. While April was warm and sunny in parts, it was generally too dry and cold for any appreciable growth of grass. May was warmer than in 1968, but growth was slow on the hill. From the 8th to 15th May a mild spell produced exceptional growth: the remainder of the month was mainly dry, warm and sunny. This pattern continued into mid-June and the drought was broken on the 15th. July was mixed, but mainly wet apart from the last week. The first half of August was thundery and humid, but on the whole quite a good month, especially in the second half. The first three weeks of September were mainly warm and sunny, followed by a wet spell which lasted almost right through October. On the whole the autumn was very 'open', and exceptionally mild with above average growth.

1969 will be remembered as the driest year on record with a total rainfall of only 46.65 inches.

Rainfall November 1968 - October 1969

<u>1968</u>	<u>Inches</u>
November	4.53
December	3.19
<u>1969</u>	
January	6.34
February	2.33
March	0.85
April	2.35
May	2.49
June	3.62
July	5.83
August	2.66
September	4.13
October	8.33
Total	<u>46.65</u>
1968	<u>62.96</u>
Ten year average	<u>64.8</u>

SHEEP

In November 1968, Low-End ewes were in excellent condition. The majority of Midhill ewes were in very good condition, but 20 lean ewes were culled. Barnacarry condition was similar to that on Midhill.

Ewes benefited greatly from a dry winter and spring and the adverse effects of the latter were largely mitigated by pre-lamb supplementation.

At weaning, ewes were in excellent condition. Barnacarry lambs were again disappointing, lacking both size and condition. Of the three hirsels Low-End lambs were best, followed by Midhill. In November before topping the general flock condition was superior to that in any year since records began.

Overall percentage weaned was 87.

Figures for previous years were:-

1968	70%
1967	80%
1966	78%
Ten year average	79%

Store lamb prices were similar to 1968, but the later sales in September and October were depressed and prices were under expectation. Ninety-one Midhill wether lambs were sold at Stirling on 13th August averaging 83/- to a top of 94/-.

Fifty Low-End 'second' wether lambs were sold at Stirling on 27th August at 90/- per head. In September 51 ewe lambs averaged 57/- as against 67/- last year and 48 wether lambs averaged 63/-.

A further 69 wether lambs were sold store in October-November at an average price of 50/- to a top of 79/-.

Fifty-four lambs were sold through the F.M.C. and averaged 79/1d at the following grades and weights before deduction of standard handling charges:

11 Grade A @ 30.5 lbs dead wt. @ 3/7d per lb.
4 Grade B @ 24.0 " " " @ 3/5d per lb.
35 Grade C @ 24.5 " " " @ 3/- per lb.
3 Rejects @ 20.7 " " " @ 2/6 per lb.

1 rigg carcass of 21 lbs was condemned.

These lambs were selected on the farm to make grade A or B, with the exception of a few rigg lambs which were anticipated in C grade. It is considered that this batch was graded more strictly than lots sent in previous years.

Eighty-six draft ewes were sold privately in October at 80/- per head. A further 54 cast ewes, mainly broken-mouthed, were sold through the store market at an average of 59/9d per head. Six 2 yr. x 3 yr old 'clean' ewes averaged 103/9d.

On Barnacarry 60% of the 6 yr. and 5 yr. old ewes were found to be broken-mouthed and both age groups were cast apart from 7 'correct' 5 yr. olds which were transferred to Midhill.

Lamb Sales and Reconciliation by Hirsal

	Barnacarry	Low-End	Midhill
No. Sold store (wethers)	46	78	134
Sold dead wt.	17	26	11
Sold store (ewe)	17	29	40
Retained	1	1	-
Retained for stock	57	66	97
Dead	2	1	4
Black Loss	-	-	3
No. Weaned	140	201	289
Av. price wether lambs	66/-	78/-	72/6
" " ewe lambs	43/-	53/9	53/-

Revenue by hirsels (Lambs, cast ewes, wool)

	Barnacarry	Low-End	Midhill
	£	£	£
Lamb Sales	245	483	632
Ewe Sales	144	124	273
* Wool Sales	150	219	395
Total	539	826	1290
Gross Revenue per ewe excluding subsidies	58/3	80/6	76/-

* Inclusive of interest payments, exclusive of tup wool, locks and cloggings.

Ewe Feeding

Midhill and Low-End hirsels were again offered concentrates on the hill before lambing. The supplement was a proprietary ewe nugget (12% Protein) costing just under 4d per lb on the farm.

Hirsels	Feeding Period	Concentrates/Head	Cost/Head
Midhill	11th March - lambing	40 lbs	13/4d
Low-End	12th March - 16th April	20 lbs	6/8d

Sheep Prices

Year	Fat Lamb			Store Lambs			
	No.	Carcass Wt lb.	Price/Head	Wether Lambs		Ewe lambs	
				No.	Price	No.	Price
1965	188	24.5	67/-	241	66/9	37	68/-
1966	216	26.6	68/5	253	60/3	59	43/-
1967	198	28.2	79/5	313	70/-	51	48/-
1968	71	27.7	85/5	255	82/9	58	65/-
1969	54	25.4	79/1	258	71/9	86	51/3

Draft Ewe Prices

Year	No.	Price/Head
1965	54	73/6
1966	53	47/-
1967	61	61/-
1968	79	80/-
1969	86	80/-

Hogg Wintering

Midhill hogs were again wintered at Point Farm, Ardlamont, returning on 1st May, i.e. one month later than usual. The wintering charge was 52/- per head. Low-End hogs were home wintered on the arable fields and latterly on the lower slopes of the Low-End (the 'green knawe' area enclosed in 1968), returning to the hill proper on 16th April. Hand feeding commenced on 1st February and continued until 16th April.

Barnacarry hogs were also home-wintered at grass and returned to the hill on 9th April. Supplementary feeding of Barnacarry cost 9/- per hogg, while Low-End feed supplement amounted to 10/9d per hogg.

HILL CATTLE

Thirty-six cows were overwintered and feeding commenced on 27th November. Hay feeding stopped on 16th April; concentrates were fed until 30th May. Total feed per cow was 19 $\frac{3}{4}$ cwts of hay plus 3 $\frac{1}{2}$ cwts concentrates at a total cost of £20:6:0d/cow (hay valued at £14 per ton, concentrates at £37 per ton).

Thirty-two calves were reared; 1 calf died at birth due to exposure. Two cows were barren and one aborted. One cow failed to produce any milk after calving and was sold in March through the F.M.C., the calf being twinned on in place of the one fatality. A further 5 cows were sold in the autumn:

- 1 home bred - udder fault
- 1 " " - dislocated hip
- 3 brought in - poor performance

Six yearling heifers were sold in the spring at an average of £45 per head and 11 retained as stock replacements.

Fifteen bullock calves were sold at Dalnally in late September at an average price of £39:4:0d. Sixteen heifer calves and 1 bullock calf are being overwintered in a sheltered field rented from a neighbour.

The herd is now undergoing test to become an accredited brucellosis free stock under the Brucellosis (Accredited Herds) Scheme.

<u>Calf Weaning Weights</u>						
<u>October 1968</u>						
	<u>No.</u>	<u>Wt. lb. wt. kg.</u>		<u>No.</u>	<u>October 1969</u>	
					<u>Wt. lb.</u>	<u>Wt. kg.</u>
Heifers	17	404	184	16	420	191
Bullocks	11	467	212	16	484	220

<u>Hill Cows</u>	<u>October 1968</u>		<u>Deaths</u>	<u>Sales</u>	<u>Hill Cows</u>	<u>October 1969</u>	
<u>No.</u>	<u>Wt. lb.</u>	<u>Wt. kg.</u>			<u>No.</u>	<u>Wt. lb.</u>	<u>Wt. kg.</u>
36	963	438	-	6	30	1022	464

N.B. If the 5 cows sold in October are included the average weight in October 1969 is reduced by 6 kg.

Arable Ground

Fields 4, 5 North and 2 were cut for hay, a second cut being taken from F.4. Approximately 41 tons of hay was made. The barn drier again proved its worth in that hay of average quality was secured in an adverse season. Drying costs (electricity only) averaged approximately 19/- per ton.

In-bye

The tup park (F.9) was given a dressing of approximately 15 cwts per acre Basic Slag (16% P₂O₅). The enclosed area beyond the tup park (F.12 W) received 12 cwts per acre. The net cost of the slag was £7:4:6d per ton and the spreading charges were 23/- per ton. A total of 18 tons was applied to 30 acres at a net cost of £5 per acre after deduction of subsidy.

Heather Burning

Favourable weather conditions in March allowed approximately 300 acres to be burned on the Low-End; 100 acres adjacent to Midhill and the remainder on the Wood Hirsell. As a result both areas were more heavily grazed during the summer than for many years.

Regeneration

Ten acres of the Midhill downfall in the North-East corner were fenced off using rylock netting.

Twenty-four tons of ground limestone were applied at a net cost of 43/9d per ton including spreading charges.

Six and a half tons of Basic Slag (15% P₂O₅) were applied at a net cost of £7:15:3d per ton including spreading charges of 23/- per ton.

N.B. Lime subsidy £1:16:4d per ton
Slag subsidy £2: 8:9d per ton

Midhill Road

The last 600 yds of road was surfaced by contractor in March using shore gravel.

Fencing

Maintenance included the repair of the Midhill paddock fences, the replacement of the fence on the shore side of Field 7 with a rylock fence and the replacement of the netting along the roadside in the laboratory field with rylock.

Most of the low ground fences now require re-stobbing. The roadside dykes bounding Fields 1 and 8 are in need of extensive repair. In the case of the former it would be considerably cheaper to replace the dyke with a sheep proof netting fence. Approximately 15 acres of the lower slopes of the Midhill down-fall were fenced to provide a lambing paddock using high tensile wire with stobs at 5 yds and droppers every 5 ft., at a cost including labour of 5/- per yd for a total length of 550 yds.

Barnacarry and Low-End

Barnacarry was again in-wintered. As this work is now discontinued a full report will be issued separately in conjunction with the Low-End development work to date.

C. SOURHOPE

Weather

It was in February that any hopes that the fairly open weather of the preceding 2 months would continue for the rest of the winter were rudely dispelled, and indeed for Scotland as a whole on only 3 occasions in the past 100 years has February been colder, viz. in 1963, 1947 and in 1895. Frost was both widespread and severe, though with only moderate snow fall. March was no better (the coldest since 1947) and with little change thereafter into early May, it proved to be the latest spring for 30 years or more. And May itself was not only cold and wet, the most depressing feature was the lack of sunshine. However, there followed a wonderful improvement and summer and autumn weather have been excellent. Indeed, the monthly mean temperature in October, the fourth warm month in a row was the highest ever recorded for that month and such records have been kept for 113 years. This glorious autumn weather could not last indefinitely and November has seen a return to much colder and wetter conditions with snow falling towards the end of the month.

Weather Records, November 1968 - October 1969

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1968</u>			
November	3.79	31.9	40.4
December	5.18	36.0	34.9
<u>1969</u>			
January	3.43	47.5	38.0
February	3.41	73.2	29.9
March	2.63	66.2	33.5
April	1.96	159.3	41.7
May	3.84	111.9	47.7
June	2.17	190.9	54.1
July	1.31	130.4	58.1
August	1.70	157.6	59.4
September	2.54	83.7	53.7
October	0.6	107.0	52.6
1968-69	32.56	1195.6	
Ten year average	36.88	1205.7	

SHEEP

The adverse weather which persisted from the beginning of February until well into May necessitated heavy hand feeding of the sheep stock over a prolonged period. Sheep on all hefts were fed concentrates not only as lambing approached but on almost to the end of lambing. For all hefts excluding Park Law the average cost of feeding all ewes was 15/9d with a range of 12/1d to 21/9d per ewe on different hefts. This average feed cost per ewe is broken down into 5/6d for storn feeding (hay), 4/6d for concentrate feeding pre-lambing and 5/9d for concentrate feeding post-lambing. In obtaining the above costs hay was costed at £16/ton and the bulk of the concentrates at £36/ton. If one looks at total expenditure on sheep-feed at Sourhope for all sheep, including Park Law stock, ewe hogs and tups and expresses this figure per breeding ewe to the tup in November 1968, then total sheep feed costs per breeding ewe rises to 25/4d. Thus the winter and spring of 1968-69 has been an expensive one from the feed point of view.

All ewes were worm drenched prior to lambing but no spring-dipping was possible due to adverse weather. The overall weaning percentage for South-Country Cheviots, North-Country Cheviots and Blackface ewes were 76, 80 and 73 respectively. These are disappointing figures and in large measure reflect the very difficult weather conditions at lambing time and the absence of any visible fresh herbage growth in the hill to sustain milk flow once a ewe had lambed, both factors contributing to the heavy lamb losses occurring in, and immediately after, lambing.

The wool crop was good and only marginally higher than in the previous year, the average price per lb. for all wool sold being 52½d. Deaths of ewes and gimmers for the year at 3.6 per cent, compare favourably with the figure of 4.5 per cent, for the previous year.

Disposal of Lambs

The bulk of lambs was again sold through the store market, with Cheviot lambs making from 2/0½d to 2/6d per lb. live-weight, and Blackface lambs from 1/5d to 1/8½d per lb. live-weight. A total of 357 South-Country Cheviot lambs averaged 86/0d (76/8d in 1968), 126 North-Country Cheviot lambs averaged 113/0d (85/5d) and 223 Blackface lambs averaged 74/8d (56/0d) to give an overall average for 706 store lambs of 87/3d (72/0d). With an additional 91 fat lambs at an average price of 110/0d, then Total Income for 797 lambs sold is thus 90/0d/head.

Details of disposal of the 1969 lamb crop are as follows:-

Ewe lambs retained as stock replacements	370
Wether lambs retained for wether stock replacements	30
Lambs on hand (20/12/69)	45
Lambs sold store	706
Lambs sold fat	91

Apart from twenty Cheviot draft ewes which were sold fat, the entire Cheviot draft age, both North and South-Country, and including those fully-warranted, warranted in udder only and feeding ewes were sold privately. The average Cheviot draft ewe price was 89/6d and that for Blackface draft ewes 74/6d.

Sheep stock autumn 1969

The Blackface ewe stock which has shared the Fasset hill with a pure-bred South-Country Cheviot ewe stock for a number of years was transferred in early autumn to join the Banks ewe stock, this combined Blackface stock being given the ground on Outerhope in addition to the Banks. The combined Banks-Outerhope ground forms a natural, easily worked sheep run. The wether stock, temporarily running the Outerhope ground through the summer had now been moved to Fasset hill.

The condition of the ewe stock prior to tugging was satisfactory but since the onset of tugging there have been periods of snowfall, during which all ewes have been given up to ½ lb. concentrates per head daily in an attempt to at least maintain body condition through the tugging period. This has in no way affected the ability of the sheep to rake nor has there been any difficulty in withdrawing the hand feed as the snow cover disappeared, the ewes losing all interest in gathering for hand feeding as this occurred.

Cattle stocks

It will be recalled that the suckler herd at Sourhope was dispersed in the autumn of 1967. With the launching of large-scale development projects - the first was begun in the summer of 1968 - a need has arisen to build up a small suckler-cow unit as a component of each project. It was decided to take the opportunity afforded to establish a Brucellosis free herd, and to this end 25 Irish Hereford-cross bulling heifers were purchased in February, 1968. These heifers, after being chased by a private test for brucellosis, passed their first official test before joining with a Hereford bull, and thus are now

designated a Supervised Herd. They have to undergo a second and final test after calving in 1970. Herd build-up will be completed by a further purchase of 25 bulling heifers in early spring.

To comply with the requirements of the Brucellosis scheme, a cattle grid has been installed at the entrance to the farm, two fields have been double fenced together with some 2½ miles of the March fence, and two isolation calving boxes are being provided in alterations to an old byre.

Muirburn

Weather conditions prevented any muirburn in the spring of 1969.

Cropping

Twenty-five acres of grass were ensiled and thirty acres consumed as hay. As a first step to improving the fifty acre hill area known as 'Schilgreen', 2 tons of ground magnesium limestone per acre was spread in the autumn, and this is to be followed by 10 cwt slag per acre. The area has been subject to heavy grazing pressure.

Buildings

A sheep house to inwinter the ewe and hogg stocks of the Rigg and Gairs hefts is almost complete. In addition a bull pen is being constructed in an old byre and the stable accommodation for horses has been both extended and improved. A further 300 tons of hard-core has been laid on the farm road.

Fencing

A considerable amount of new fencing has been erected, almost all in connection with the two Development Projects now under way at Sourhope.

Development work

Progress in Project I (Hairney Law and Auchope) which was started in June 1968 has been satisfactory with a further two areas being fenced off using the 'multiwire permanent fence'. In all a further 1900 yards have been erected, making a total of 3000 yards now in use, and using approximately 0.83 Kilowatt hours of electricity per week. Experience over the past twelve months has brought to light no problems associated with this type of fencing and it has proved most satisfactory.

The framework of fencing and provision of in-wintering facilities within which Development Project II will operate is now almost completed. Approximately 1600 yards of high tensile "spring" fencing incorporating Dragon-Loop droppers has now been completed on the Gairs hill and it is also intended to make a slight adjustment to the existing Rigg-Park Law boundaries. The Rigg and Gairs ewe and hogg stock will be housed about mid-January 1970.

II SUMMARY OF FLOCK RECORDS FOR 1968-69

A. GLENSAUGH

Table 1

Reconciliation of Ewe Numbers 1968-1969

Heft	Ewes & Gimmers Nov. 68	Cast Ewes	Transfers Out	Deaths	Gimmers brought in	Purchases	Transfers In	Ewes & Gimmer Nov. 69
<u>Cairn</u>	88	-	-	5 dead 2 missing	-	-	-	81
<u>Finella</u>								
East Finella	129	25	-	5	34	-	-	133
Mid Finella	143	8	17	4	45	-	-	159
	Reduced from 145							
West Finella	114	3	-	4	6	-	-	113
<u>Forestry Park</u>	72 Reduced from 73	1	10	5	17	-	-	73
<u>Big Hill</u>	430 Reduced from 435 Before mating	34	40	36 Gimmers 23 Ewes 59*	107	-	-	404
<u>Fertility</u> Old Ewes returned from Res. A/C	73	59	-	14	-	-	-	-

* Of this 59, twelve are missing without trace and may yet turn up. A further twelve died while involved in research programme.

Where reductions are shown above, the lower figure is the true figure for mating.

GLENSAUGH

Table 2

Lambing Percentages 1968-69

Heft	Ewes to Run Nov. 68	Lambs Marked 1969		Lambs 1968 % Marked	% Lambs Weaned 1969
		Total	% Marked		
<u>Cairn</u>	88	60	68.2	104.4	64.8
<u>Finella</u>					
(a) East Finella	129	128	99.3	113.8	94.6
(b) Mid Finella	143	172	120.3	150.7	111.2
(c) West Finella	114	132	115.8	144.4	110.5
Forestry Park	72	78	108.3	136.1	100.0
Big Hill	430	286	66.7	123.6	64.4
Fertility Expt.	73	73	100.0	-	94.5
Flock Totals and Averages	1049	929	88.5	127.9	84.1

Table 3

Weights of Ewes and Gimmers (kg)
1968-69

Heft	Ewes		Gimmers	
	Nov. 1968	Nov. 1969	Nov. 1968	Nov. 1969
Cairn	50.2	50.5	-	-
<u>Finella</u>				
(a) East Finella	63.6	62.4	51.0	51.1
(b) Mid Finella	61.7	61.4	51.5	52.2
(c) West Finella	58.0	63.6	-	51.2
Big Hill	-	51.1	38.8	39.2
Forestry Park	60.8	63.9	52.2	53.0

B. LEPHINMORE

Table 1

Reconciliation of Ewe Numbers 1968-69

Hirsel	Ewes and Gimmers Nov 1968	Ewes		Deaths* Nov./Nov.	Gimmers Brought in Nov. 69	Ewe Transfers	Ewes and Gimmers Nov. 69
		Draft	Cast				
Barnacarry	185	25	22	17(7)	52	-7	166
Low-End	200	33	2	8(4)	55		212
Midhill	339	40	23 ϕ	12(2)	90	+7	361
Total	724	98	47	37(13)	197		739

* Inclusive of Black Loss (noted in brackets)

ϕ Includes 14 non-conformist nomads

Table 2

Lambing Percentage 1968-69

Hirsel	Weaning Weights				Marking %			Weaning %		
	Singles		Twins		No.	%	%68	Weaning %		%68
	No.	Wt. lbs. (kg)	No.	Wt. lbs. (kg)				No.	%	
Barnacarry	118	53.9 (24.5)	10	48.5 (22.0)	152	82	72	140	76	67
Low-End	140	61.2 (27.8)	54	53.9 (24.5)	205	102	72	201	100	70
Midhill	230	57.3 (26.0)	58	45.7 (20.7)	297	87	76	289	85	71

Table 3

Weights of Ewes and Hogs (kg) 1968-69

Hirsel	Ewes*		Hogs		
	Nov. 1968 kg.	Nov. 1969 kg.	Oct. 1968 kg.	April 1969 ϕ kg.	Nov. 1969 kg.
Barnacarry	47.0	48.9	29.1	27.8	41.6
Low-End	49.2	49.7	31.7	28.2	44.9
Midhill	45.6	50.7	29.4	31.7	45.1

* excluding gimmers

ϕ Barnacarry weighed 9th April
 Low-End " 21st March
 Midhill " 1st May

C. SOURHOPE

Table 1

Reconciliation of Ewe Numbers 1968-69

Heft	Ewes & Gimmers Nov. '68	Cast Ewes	Deaths Ewes & Gimmers	Gimmers Brought in	Hoggs born '69	Ewes & Gimmers Nov. '69
<u>S.C.C.</u>						
Fasset	107	22	2	29	22	112
Rigg	184	23	6	50	34	205
Gairs	186	16	6	46	43	210
Park Law	115	22	6	27	27	114
Auchope	223	34	5	57	58	241
S.C.C. Total	815	117	25	209	184	882
<u>N.C.C.</u>						
Park Law	115	20	7	26	27	114
Hairney Law N.E.	175	18	9	62	58	210
In fields	46	42	4	-	-	-
N.C.C. Total	336	80	20	88	85	324
<u>B.F.</u>						
Alderhope	201	24	5	40	41	212
Banks & Brows	195)	46	8	62	60	290
Fasset	87)					
B.F. Total	483	70	13	102	101	502
Flock Total	1634	267	58	399	370	1708

