



Not for Publication

H.F.R.O. 155

HILL FARMING RESEARCH ORGANISATION

FARM REPORTS AND SUMMARY OF FLOCK RECORDS

YEAR ENDED OCTOBER 1964

I FARM REPORTS - 1963-1964

A. GLENSAUGH

Weather

The months November-March, were dull but with temperatures generally above the seasonal average, the hardest weather being in December when there were 21 consecutive days of ground frost, and the worst in March when 7 inches of snow fell and lay for 7 days. April was exceptionally mild, and May, June and July generally warm and dry. After July the temperatures were about the seasonal average with the exception of October which was dull and cold.

The total of 1131.6 hours sunshine was the lowest recorded at Glensaugh for the last 10 years. Four months - November, December, March and October - had less than 50 hours, the lowest being March with only 25.9 hours and the highest May with 181.3 hours.

34.71 inches of rain fell throughout the year, 6 inches below the 10 year average, and varied from 7.12 inches in November to 0.99 inches in January.

There was very little snow. The first fall was on the 19th December when 3 inches fell and lay until the 27th December, and the next and heaviest fall was between the 15th and 21st March with seven inches.

Weather Records, November 1963 - October 1964

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1963</u>			
November	7.12	47.8	41.7
December	2.10	45.5	36.5
<u>1964</u>			
January	0.99	59.3	37.6
February	2.52	69.2	37.8
March	5.09	25.9	37.4
April	2.25	116.2	44.3
May	1.86	181.3	52.3
June	3.06	149.7	54.2
July	1.44	169.1	56.6
August	3.55	117.2	55.2
September	2.55	101.8	52.2
October	2.18	48.6	45.2
Total	34.71	1131.6	
10 Year Average	40.29	1399.6	

SHEEP - Hill flock

Compared with the previous winter there was no snow of any consequence in the early part of the winter and the tupping went well. Normal supplementary feeding began on the 14th February. With the open winter very little hay or silage was fed on the Cairn or Finella. Big Hill ewes got silage in the Big Den.

The/

The worst of the winter was experienced in the second half of March, with snow, sleet, rain and wind.

Ewes were in fair condition at the start of lambing with an average pre-lambing weight of 98 lb. All were lambed inbye and the Cairn ewes remained in until the end of May for experimental purposes.

The death rate in ewes was high being almost twice normal. Of the 50 deaths, 8 were ewes missing, 6 died from Staggers, and most of the remainder being older ewes in poor condition dying in late winter.

The number of lambs born was 614 compared with 645 the previous year but deaths from birth to marking were down from 115 to 93. There was an increase of Eild ewes and also of Kebbing or Abortion on the Big Hill among ewes involved in the Inbreeding experiment. Blood samples were taken of a proportion of the aborted ewes but no evidence of any infection was found. From 576 ewes put to the tup, 505 lambs were weaned, giving a weaning percentage of 88%, the same as 1963, the individual hirsels being as follows:-

	<u>% Weaned</u>	
	<u>1963</u>	<u>1964</u>
Cairn	96%	106%
Finella	99%	108%
Big Hill	81%	72%

The weaning weights of lambs were 63 lb. for singles and 51 lb. for twins.

The fleece weight overall was up from 3.4 lb. to 4.1 lb. in ewes and from 3.5 lb. to 4.0 lb. in hogs.

In addition, 54 ewes involved in Dr. Doney's shed work were mated in November 1963 and put to the Big Hill during summer. Forty-eight lambs were weaned from these ewes, giving a total count of Blackface lambs weaned of 553. These were dealt with as follows:-

183	ewe lambs retained for stock.
2	ram lambs sold at 150/- each.
40	wether lambs sold store at 97/-
181	lambs sold fat at 94/-
136	lambs on hand.
11	deaths.

553

Lambs sold store averaged 75 lb. and these sold fat 72 lb.

#### Low Ground Flock

As in 1963 a flock of low ground sheep was maintained, consisting of (a) 54 Cheviots, mated with a Cheviot Ram, checked at tugging to produce single lambs, and later fed concentrates and silage (b) 176 Blackfaces, 102 mated with Cheviot Rams (J. N. Peart - Sire Testing) and 74 mated with the Border Leicester. These ewes were also fed concentrates and silage, with some turnips for a short period.

Summary of inbye flock

Ewes mated	Lambs born	Lambs marked	Lambs weaned	% weaned
Cheviot 54	59	44	44	81
Blackface (Chev. Ram) 102	150	122	122	120
Blackface (B.L. Ram) 74	105	84	83	112
Total 230	314	250	249	108

The newly born lambs had to face the worst weather of the winter from the 14th to 24th March. Some ewes had very little milk and lambs were lost.

The Cheviot/Blackface cross proved very satisfactory and graded better than the Border Leicester cross.

At the end of November 211 low ground lambs had been sold both store and fat at an average price of 107s.

CATTLE

The breeding herd numbered 69 cows plus 22 in-calf heifers at the beginning of the year. Through the year 23 cows were cast and this reduced the age of the oldest cows from 17 to 13 years. Apart from age casting and deaths any cow which aborted for the second time was sold.

At the end of the year the herd numbered 68 cows plus 10 in-calf heifers.

All calves were born between January and the first week in April and 67 were presented for Calf Subsidy.

One calf was purchased.

Summary of calf births and deaths

Calves born dead	Calves born alive	Died, Exposure or exposure followed by Pneumonia	Died, other causes	Bought	Calves weaned
7 4 Abortion 1 Dystocia 2 Still born, possibly abortion	78	7	5 1 Hairball 1 Abscess on Navel and Liver 1 Staggers 2 Killed by mother	1	67

The/

The worst feature of 1964 was the storm in late March of snow, sleet and driving rain and during this period 6 calves were found dead in the morning or died within a few days after treatment for Pneumonia. This happened in the Big Den and Little Den where they had been put to have most shelter.

The following tables show the liveweight of cows, weaning weight of calves, sales, prices, etc:-

Live-weight of cows - November 1964

Breed	No.	Average Weight (lb.)
Galloway	15	1085
Shorthorn/Highland	9	1041
Shorthorn/Galloway	12	1053
Aberdeen/Angus Cross	21	1143
Hereford Cross	6	1065
Shorthorn Cross	5	1126
Average	68	1093

Weaning Weights of Calves

Sire of Calves	Male		Female	
	No.	Average Weight (lb.)	No.	Average Weight (lb.)
Aberdeen Angus	15	403	10	355
Hereford	15	515	12	466
Shorthorn	7	445	7	402

Average calf weights were lower than in 1963 as there were none born in autumn. There was also a higher proportion of heifer's calves.

Cattle Sales

With the exception of 1 heifer retained for breeding, all the 1963 calves not sold in the Autumn of 1963 were disposed of in March, April and May 1964.

Weights and Selling Prices

No. and Sex	Av. weaning wt. Oct. 1963	Av. Pre-Sale wt. Spring 1964	Av. Sale Price
24 Bulls	488	712	£62 12 -
20 Heifers	484	679	£56 13 -

Of the 1964 calves 14 have been sold at the date of this report:-

<u>No.</u>	<u>Average Weight</u>	<u>Price</u>
8 Aberdeen Angus Crosses	609 lb.	£55 5s.
6 Shorthorn and Hereford Crosses	620 lb.	£46 5s.

#### Cropping 1964

<u>Grain</u> (acres)	<u>Roots</u> (acres)	<u>Grass</u> (acres)
Oats - 31	Turnips - 14	Silage - 49
	Kale - 5	Hay - 64
	Potatoes - 2.5	Grazed - 160
	Rape - 11	

In addition to the above, 5 acres of Rye were grown for grazing but this was not very successful.

Oats - The 31 acres were made up of 8 acres Ayr Commando and 23 acres of Blenda.

The Ayr Commando and the first 8 acres of Blenda were heavy crops, secured without difficulty. The last field (15 acres) had a very heavy sole of young grass below it which made harvest difficult, as the weather deteriorated.

Root - With the exception of 1 acre of Bertfelder affected with Canker, the turnip crop is a heavy one. Kale has done very well and it is estimated that 5 acres will provide as much fodder as did the 8 acres last year. Rape has done well and at present is being eaten by lambs in a fattening experiment. (A. J. F. Russel).

Hay and Silage - With good weather the emphasis was on hay rather than on silage and it is estimated that 80 tons of hay were secured in first class condition and a further 15 tons in reasonably good condition. Approximately 140 tons of silage were made.

Reclamation - It was intended to sow a permanent grass and clover mixture in the Upper Redstones after grazing the Italian Ryegrass left from the previous years Rape and Italian. With the onset of very dry weather it was decided to leave the Italian for another year rather than chance a poor sow-out due to drought. The Italian did in fact, graze very well.

Heather Burning - With the drier weather it was possible to make muirburn on the Cairn, Big Hill and Lochhills area and it is estimated that 100 acres were burned.

Buildings etc. - The new cottage is now occupied and appears to be satisfactory.

The reconstruction of the fank is complete and the general lay-out is working well. Some of the materials used are not all that could be desired.

A bruiser loft was formed in the steading, making the operation of bruising oats quicker and more economical in labour.

Some overhanging trees at the back of the old Lodge on the brae have been removed and the house is much drier and brighter.

B. LEPHINMOREWeather

The first half of November, 1963, was mainly wet, followed by a period of frost mid month. Topping time saw the best weather for many years; bright clear weather with little rain and a short period of hard frost in mid December. The last week of December was mild with rain at times. January with the exception of one short cold spell was unusually mild until the end of the month which brought rain and colder weather and February opened with stormy cold days, followed by a return to very mild conditions. The first twelve days of March continued mild and growthy, but thereafter the month was very cold with strong east winds and snow at times. While this must be considered the mildest winter on record, the severe March weather brought ewes quickly down in condition. Fortunately, the first week of April was fairly good and although the second was wet and cold, lambing commenced in mild weather with good growth. May was wet and cold until the last week which was sunny and warm.

June was a better month than that of the previous year, but only the last week gave suitable hay-making weather; the first week of July was similar and although hay did not make quickly there was no heavy rain to spoil the crop.

The remainder of the summer will be remembered for its long periods of dull cloudy and misty weather, the monotony of which was only relieved at intervals by prolonged heavy rain. September began warm and sunny, but the remainder of the month was unsettled. October was, in the main, a good month and stock benefited greatly.

Weather Records, November 1963 - October 1964

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1963</u>			
November	7.44	36.7	43.2
December	2.09	29.7	39.0
<u>1964</u>			
January	3.88	23.6	41.6
February	1.51	53.3	40.7
March	2.05	71.8	41.1
April	5.23	97.1	46.8
May	4.19	128.7	53.4
June	3.37	119.8	55.2
July	6.22	78.5	56.7
August	5.76	119.6	56.2
September	8.87	90.9	54.2
October	5.60	67.9	48.0
Total	56.21	917.6	

10 year  
average            67.46            1236.2

SHEEP

In October, 1963, the ewe stock was on the whole in excellent condition, with the Mid-hill slightly better than Low-End or Barnacarry. In February, 40 lean ewes were brought inbye, but apart from these and a further 9 inbye since November, the stock had come through the winter in good shape. At udderlocking in April there was little to choose between the hirsels as far as condition was concerned. The Midhill gimmers were best, but all sheep, although lean, were fit and in good heart for lambing. Midhill and Low-End were again lambing in the inbye fields at the farm and for the first time Barnacarry 'high going' ewes were lambing in the newly fenced enclosure above Barnacarry croft. Unfortunately, a number of ewes chose to lamb close to the unfenced Barnacarry burn and lamb losses were higher than expected; this will be remedied before the 1965 lambing season.

At marking, Midhill ewes were showing the most bloom, followed by Low-End. All lambs were good, particularly the Midhill. By mid June the Low-End lambs were the worst group and a faeces examination of lambs which were scouring revealed in one case a count of 200 nematodirus eggs per gramme. However, by mid July the Low-End lambs had improved, were again thriving and in fact were superior to those on Barnacarry. As a precautionary measure the Low-End lambs were dosed with Thibenzole at the milk clipping. All three hirsels had a good 'rise' at clipping.

At weaning, the Low-End lambs were best, followed by Barnacarry and then Midhill. Low-End ewe hoggs were again the best, followed by Midhill and Barnacarry. On Midhill the order of preference judged on quality and growth was Lanark - Lewis - Newton Stewart - Swaledale. All Midhill lambs were sired by Lanark type rams. In October, 1964, Low-End were best with regard to condition with Midhill only slightly behind. Barnacarry were very disappointing but improved considerably during November. Overall number of lambs weaned was 83%, compared with 69% in 1963 and 77% in 1962. Contrary to normal practice the top wether lambs were retained in August and a cut of seconds sold instead, realising 81s. 6d. per head. A pen of thirds made 64s. at the same sale. The top lambs were sold through the store ring in mid-October, 20 realising £5 14s. per head and 20 at £5 3s. 6d. One hundred and eleven lambs, including 14 ewe lambs were sold fat through the F.M.C. at an average price of 83s. 3d.

All ewe hoggs were wintered at Point Farm, Ardlamont, and came home in fair condition but did not summer well. The cost of wintering is now £2 per head, excluding transport costs. If wintering costs continue to rise it will be necessary to give further consideration to alternative methods of wintering.

In-Shed Fattening of Wether Lambs

The 65 lambs retained at 31st October, 1963, were subsequently housed and fattened on a mixture of barley, oats and fish meal. Thirty-one were graded during March and April at an average dead weight of 35½ lb. @ 3s. 5½d. per lb. and a further 19 sold at 89s. per head. Total revenue for these 50 lambs was £275 and total feed costs £95, leaving a gross margin of £180. Their average live-weight at the beginning of the fattening period in January was 59 lb., when they were valued at 55s. to 60s. A further 12 lambs which had been housed separately and store-fed averaged 77s. per head at the beginning of May.

Supplementary Feeding/



Supplementary Feeding

A concentrate ration was again fed to the Low-End and Midhill hirsels before lambing. Due to the high price of sheep cake, a dairy cube was fed costing just under £32 per ton. Twice a week feeding was again practised, beginning on 13th March and ending on 15th April, when the ewes were brought inbye for lambing. Approximately 10 lb. per head was fed at a cost of 3s. per head, excluding haulage and labour costs.

Fat Lamb Prices

Year	No.	Carcass Weight (lb.)	Price per Head
1959	139	29	90/6d.
1960	85	27 $\frac{1}{2}$	78/6d.
1961	133	28	90/-
1962	94	27 $\frac{1}{2}$	81/3d.
1963	127	27 $\frac{3}{4}$	85/9d.
1964	111	27 $\frac{3}{4}$	83/3d.

Cast Ewe Prices

Year	No.	Price per Head
1959	68	29/6d.
1960	56	60/-
1961	59	51/-
1962	43	62/-
1963	75	64/-
1964	45*	73/-

\* 40 cast ewes retained for experiment

Average Lamb Prices

Year	No.	Wether Lambs	No.	Ewe Lambs
1959	212	74/-	75	32/6d.
1960	235	65/-	99	43/-
1961	235	79/-	90	42/6d.
1962	217	82/6d.	73	68/-
1963	147	82/6d.	63	55/6d.
1964	238	80/-	83	67/6d.

CATTLE

Of the 30 cows at November, 1963, one died in early January. Post mortem examination was not conclusive, but revealed slight degeneration of the heart muscle. One four year old cow which had failed to breed as a heifer and proved again to be eild was sold off fat, realising £62. The remaining 28 cows came through the winter extremely well, due to the favourable weather conditions of late autumn/

autumn and winter. One March calf died at birth from exposure to blizzard conditions and two cows were eild. Twenty six calves were reared to weaning, one of these being bought in. A price of £43 per head was realised in April for the three heifers and one bullock calf over-wintered. The 1964 calf crop was again sold at Dalmally, the top pen of six bullocks realising £44 per head, with an average of £39 10s. for the total crop of 12 bullock calves. Six heifer calves were sold at an average price of £33 15s. Eight heifer calves are being over-wintered. All calves were again creep fed. Concentrate feeding started on 31st August and was continued until the sale on 16th October, averaging 120 lb. cake per calf at a cost of approximately 40s. per head.

Live-weights of the cows in November 1963 and November 1964 were 897 lb. and 950 lb. respectively. Six 2½ year old Shorthorn x Highland heifers (four second cross ) were purchased at Stirling in May, at an average price of £64 per head. In November they weighed 803 lb.

Average weaning weights of the Aberdeen Angus x Shorthorn x Highland calves for 1963 and 1964 are as follows:-

Calves	1963		1964	
	No.	Weight (lb.)	No.	Weight (lb.)
Heifers	9	419	14	428
Bullocks	20	484	12	484

#### ARABLE GROUND

The first cut of hay was made on 2nd June and baled and placed in the barn drier on 5th June. Without a drier this hay could not have been secured with the pick-up baler and it is doubtful if it could have been got even by rucking before the middle of the month. The best hay making spell came in the last week of June and the first week of July. While it was not quick hay making weather, there was no heavy rain during this period, and hay was fairly easily got compared to previous years.

While much good hay was made, frequent breakdown of the barn drying plant resulted in excellent batches of hay being partially ruined through over-heating. Ultimately, both motor units burned out and had to be returned to the makers for repair. A second unit was loaned by the Hydro Electric Board for the remainder of the season, but unfortunately this also broke down and loss of quality through overheating again resulted. Approximately 42 tons of hay were made over the season. Due to the failure of the drying plant it is not possible to give accurate drying costs per ton but on the year's evidence the cost of drying hay in this area is in adverse weather likely to be about £2 to £3 per ton. No silage was made in 1964.

One hundred and fifty-one lambs were fattened off grass, 40 of these being sold in the store market. In addition a stock of 36 Romney Marsh and 40 Blackface cast ewes are being over-wintered on the low ground.

#### Fencing/

Fencing

In March, a cross fence was erected enclosing the Barnacarry croft land and some 40 acres of hill, a total area of 70 acres. The Barnacarry roadside fence will be completed this winter.

Heather Burning

Approximately 180 acres of heather were burned in the spring, comprising 50 acres on Barnacarry, 60 acres on Midhill and 70 acres on Low-End. A good burn was obtained on all three areas. The burning on Midhill was carried out on the area known as Hunt's Bog and for the first time for many years this ground was heavily grazed during the summer.

Drainage

Thirty-six chains of 3" tile drains were laid in the wet hollow in Field eight East and 15 chains in Field eight Mid above the roseed. The cost of trenching and back filling was 30s. per chain. The tiles cost 30s. per chain and were laid by farm labour at overtime rates. A 3" tile drain, four chains in length was laid in the Lab Field to tap a choked rubble drain in an attempt to dry out the bottom of the field.

Midhill Downfall Road

No further progress has been made with the grading and gravelling of the second section of this road. While the Forestry Commission's tender has been accepted for this work, it would appear that there is little likelihood of the road being completed before next summer.

Midhill Improvement

Forty-three tons of ground limestone were spread by hand on approximately 20 acres in the second 100 acre paddock on the Midhill. During the summer a dressing of 12 cwts per acre of basic slag was applied to the limed areas. In February the areas of the downfall improved in 1958/1959 were given a dressing of 12 to 15 cwts per acre of basic slag. The Midhill ewe stock now stands at just over 300 ewes and it is hoped by November, 1966, to bring this figure up to 350 ewes. It is also intended to increase the ewe stocks on Barnacarry and Low-End to 200, giving a total of 750 ewes on the farm. A cattle stock of 40 breeding cows and heifers is envisaged by autumn 1965.

Buildings

During the year the hostel and other dwelling houses were snow-cemmed and the outside paintwork renewed.

The roofed area of the fank was extended giving an additional 2,000 square yards of cover. This proved invaluable this year at clipping time and will also be easily adopted if necessary for the in-wintering of either ewes or hogs.

C. SOURHOPEWeather

Although November was not unduly cold it proved to be an exceptionally wet month, while December was in complete contrast being fairly dry. January and February alike were both mild and open; such snow as fell in the latter month being 'short-lived'. Much less favourable was March, the weather being dull and wet with a fairly heavy snowfall in the middle of the month. Good weather followed throughout lambing with May being dry and with above average temperatures. This good weather, apart from the first fortnight in June which was unsettled, persisted until early August. The almost drought-like conditions had little adverse effect on the pasture, August, as often at Sourhope, was a wet month. With the exception of one or two unsettled periods of short duration the autumn has been mild and dry and it is surprising that notwithstanding the dry summer and autumn, the total number of hours of sunshine for the year, is the lowest recorded at Sourhope.

Weather Records, November 1963 - October 1964

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1963</u>			
November	7.66	36.5	41.3
December	1.31	37.5	35.6
<u>1964</u>			
January	1.88	51.5	37.9
February	1.26	55.7	36.7
March	3.82	51.1	36.1
April	1.78	87.9	44.8
May	1.26	185.7	50.5
June	1.54	145.2	55.2
July	0.56	127.4	56.0
August	4.08	118.2	55.7
September	1.65	137.9	53.9
October	3.38	59.5	45.7
Total	30.18	1094.1	

10 Year  
average      33.03      1334.7

SHEEP

The sheep stock, lacking in condition prior to tugging 1963, came through a fairly open winter in fair condition, the only recourse to sustained hay-feeding being for a period immediately before lambing, and varying from 4 to 6 weeks according to the heft.

Lambing was straight-forward and the season ended with lamb weaning percentages of 82%, 99% and 84% for the South-country, and North-country Cheviot ewes, and the Blackface ewes respectively. These are 6-8% below the normal for the farm, due to fewer twin births and an increase in eild ewes. Of 77 eild South-country Cheviots, 37 were gimmers which, as hoggs, had endured the winter storms of 1962-63. There was a surprisingly high eild count among the 4-crop ewes on both Fasset and the Near-End Park Law. Of 36 eild Blackface sheep on Alderhope heft, 21 were gimmers the whole age-group of which were being crossed with a/

a Merino tup. Though "marking" all his gimmers the tup left no lambs.

Lamb losses from birth to weaning at 18.6%, 15.1% and 15.4% for the South-country, North-country and Blackface ewes show a marked reduction over the previous year and compare closely with losses of 20%, 16% and 17% for the three types of lamb in 1961-62. With the exception of North-country Cheviot lambs where losses from marking to weaning were again high, fewer lambs have been lost after marking than for the previous 3 years.

In view of the higher rate of lamb losses for the South-country Cheviot ewes on the Far-End Hairney Law, particularly over the last 2 years, when compared with other South-country Cheviot hefts, all ewes on this heft were vaccinated with Covexin in autumn 1963 and again in spring 1964, at a cost of £15 18s 9d. for the vaccine (the cost of vaccine for second and subsequent years should drop to £9 11s 1d., assuming no change in heft numbers). A record of the loss of lambs on this heft for 1964 and the three previous years is given below:-

Year	% Loss of Lambs		Losses of Lambs on Far-End Hairney Law	
	All S.C.C. ewes	Far-End H. Law heft only	Birth-Marking	Marking-Weaning
1960-61	18.7	22	24 (14)*	7
1961-62	20.0	30	31 (14)	10
1962-63	28.0	40	40 (19)	10
1963-64	18.6	20.5	22 (19)	1

\* Shows number of lambs included in total known to have been born dead or dead within 24 hours.

There has been a reduction in lamb losses from marking to weaning compared with previous years, and whilst 22 lambs are shown to have died before marking, 19 of these were either dead at birth, or died within 24 hours. Thus only three lambs surviving 24 hours after birth were lost up to marking.

Attention was drawn last year to the unusually high losses of lambs from marking to weaning for the North-country heft and the pattern has again repeated itself this year. Thus over the four lamb crops from 1961 to 1964 inclusive, losses of lambs from marking to weaning have been 20, 6, 12 and 17 respectively. There is need for an experimental vaccination policy to be introduced on the Near-End, whilst continuing that on the Far-End heft.

The condition of the ewe stock prior to tupping 1964 is good, the sheep having benefited greatly from the excellent weather of both summer and autumn.

Hitherto sheep needed for special experiments off the hill have normally been drawn from draft ewes from the various hefts. This has been extremely limiting and in view of the long term experiment on Fasset having been completed, it has been decided to establish a pool flock on Fasset, which can be drawn upon for sheep needed for work in the sheep house or in pens. It will consist of Cheviot and Blackface ewes and also of wethers.

The/

The change over from a South-country to a North-country Cheviot stock on Hairney Law (far-end) continues.

A good trade was experienced for store lambs, the averages being:-

363 South-country Cheviot	74/-
151 Blackface	72/-
57 North-country Cheviot	109/-

106 lambs (S.C.C., N.C.C. and Blackface) have been sold fat off rape so far to average 111/-

Draft ewes sold as follows:-

South-country Cheviot	6 year old	- 89/-
North-country Cheviot	6 year old	- 71/-
Blackface	6 year old	- 90/-

### CATTLE

Taking the winter as a whole the feeding of the hill cows was straightforward, and for much of the time the cows were able to get valuable grazing from the hill. The exception was the third week of March (14th - 21st) which opened with a severe blizzard during which four calves perished, and throughout which high winds and bitterly cold temperatures made it essential to provide some shelter. Feeding started on 18th December and did not finally cease until 5th May, the cows receiving per head 10 cwt hay, 35-40 cwt silage, and hill cow nuts to the value of £2 17s 6d.

Calving started on the 15th February, and lasted until 14th April. In all 10 calves were lost, four in the blizzard of the 14th - 15th March, two cows calved dead calves, one calf died of Pneumonia, one drowned, one died of Hairball and one calf, which was unable to use its legs from birth died within 24 hours. Four bought-in calves were set on.

In 1963 it will be recalled that all calves were creep-fed from August to weaning in October, each calf receiving  $1\frac{1}{2}$  cwt of cake. This year only 33 calves out of 45 were selected for creep feeding as being potential sale calves in October. In the event only 27 of the 33 were sold, six being retained for sale in spring. Creep-feeding started on 24th August, calves receiving  $1\frac{1}{2}$  cwt cake at a cost of £2 11s. Twenty Aberdeen Angus x calves averaged £42 15s and seven Blue-grey calves £38 13s.

The average daily live-weight gains made by the calves on the hill over the main summer period (May to October) in 1964 was:-

Aberdeen Angus x calves 2.96 lb. live-weight gain per day, and Blue-grey calves 2.60 lb. per day, with bullocks showing the larger gains.

These gains are better than in any of the previous four years.

In addition to the calf deaths noted previously, one Blue-grey cow died on the hill a post-mortem of which failed to reveal any obvious cause of death. All Blue-grey cows were mated to the Aberdeen Angus Bull, and the Galloways to the White Shorthorn.

In/

In addition to five Blue-grey heifers calves being retained for stock 13 calves are being over-wintered for sale in spring. In November 1964 cattle numbers comprised:-

Cows and in-calf heifers	48
Dry cows	7
Bulling heifers	5
Heifer calves for herd	5
Calves for sale in spring	13
Bulls	2

Cattle Weights, October 1964

Cows			Sire of Calves	Weaning Weights of Calves			
Breed	No.	Weight October 1964 (lb.)		Male		Female	
				No.	Weight (lb.)	No.	Weight (lb.)
Galloway	19	1140	White Shorthorn	8	492	6	445
Blue-grey	31	1221	Aberdeen Angus	14	567	13	538

Heifers in Calf

Blue Grey - 4 (998 lb.)

Bulling Heifers

Blue Grey - 5 (794 lb.)

Galloway Heifer not in calf - 1 (1032 lb.)

Cropping

A total of 60 acres were cut for hay to give an estimated yield of 86 tons of hay. The bulk of this was got in first class order. In addition 12½ acres of grass were conserved as silage. Twelve acres of Ymer barley sown as a nurse crop to grass seeds were harvested as grain, some 18 tons of grain coming off the combine and being dried by the Lister Blower. Five acres of a rape-turnip-ryegrass mixture have provided an excellent feed for lambs, 125 of which have so far been fattened.

Roads

The proposed route of a circular farm road has been tentatively decided and a preliminary survey made by an Engineer from the Department of Agriculture for Scotland.

## II SUMMARY OF FLOCK RECORDS FOR 1963-64

A. GLENSAUGH

Table 1

Reconciliation of Flock Numbers, 1963-64

Heft	Ewes and Gimmers at Nov. 1963	Disposals				Gimmers brought in at Nov. 1964	Ewes and Gimmers at Nov. 1964	Ewe Hoggs Kept 1964
		Ewes Cast	Retained for Sheephouse	Retained for Inbye Flock	Deaths			
<u>CAIRN</u>	116	33 <sup>f</sup>	-	-	10 <sup>+++</sup>	38 <sup>∅</sup>	111	39
<u>FINELLA</u>	142	-	-	20	9	45	158	44
<u>BIG HILL</u>	318	28 <sup>++</sup>	31	25	31 <sup>+</sup>	139 <sup>f</sup>	342	100
<u>LOCH HILLS</u>	-	-	-	-	-	40 <sup>*</sup>	40	-
Flock Total	576	61 <sup>f</sup>	31	45	50	262 <sup>f</sup>	651	183

<sup>f</sup> Includes 33 ewes transferred to the Big Hill

<sup>+++</sup> Includes two sheep missing since March 1964

<sup>++</sup> 28 Lewis ewes transferred to Cairn

<sup>∅</sup> 38 Lewis ewes and gimmers transferred to Cairn

<sup>\*</sup> Includes 19 Cheviot gimmers

<sup>+</sup> Includes five sheep missing since January 1964



Table 2

Lambing Percentages, 1963-64

Heft	Ewes to Tup	Tup Eild & Abortions	+++ Ewes Dead	Lambs Born		Lambs Marked			% Weaned
				Total <sup>++</sup>	%	Total	%	% 1963	
<u>CAIRN</u>	116	17	4	150 <sup>+</sup> (53)	129	128	110	98	106
<u>FINELLA</u>	142	11	5	185 <sup>/</sup> (58)	130	154	108	102	108
<u>BIG HILL</u> Main Flock	148	13	4	168 (37)	113	150	101	89	95
Lewis	42	2	2	43 (5)	102	40	95	100	95
<u>INBREEDING EXPERIMENT</u> <sup>*</sup>									
Inbred Progeny	57	36	8	14 (1)	25	5	9	55	7
Outcross Progeny	71	15	8	54 (6)	76	44	62	74	62
<u>BIG HILL TOTAL</u>	318	66	22	279 (49)	88	239	75	87	72
<u>FLOCK TOTAL</u>	576	94	31	614 <sup>xx</sup> (160)	107	521	90	93	88

+++ Ewes dead from November to end of April

++ Pairs of twins noted in brackets

+ Includes two sets of triplets

/ Includes one set of triplets

xx Includes three sets of triplets

\* All progeny from the Inbreeding experiment produced outcross lambs.

Table 3

Weights of Ewes, Hogs and Fleeces (lb.) 1963-64

Heft	EWES				HOGGS			
	Weights			Fleece July 1964	Weights			Fleece June 1964
	Nov. 1963	Mar. 1964	Nov. 1964		Nov. 1963 <sup>++</sup>	Mar. 1964	Nov. 1964	
<u>CAIRN</u>	108	107	116	4.2	72 (42)	65	99	3.5
<u>FINELLA</u>	101	109	117	4.7	79 (45)	70	110	4.1
<u>BIG HILL</u>								
Main Flock	100	98	106	4.1	72 (79)	65	102	3.8
Lewis	87	86	99	3.0	61 (11)	56	89	3.0
<u>INBREEDING EXPERIMENT</u>								
Inbred Progeny	83	70	99	3.3	-	-	-	-
Outcross Progeny	94	87	106	4.0	-	-	-	-
<u>BIG HILL TOTAL</u>	91	89	104	3.8	71 (90)	64	100	3.7
<u>FOREST PARKS</u>	-	-	-	-	93 (40)	76	133	5.0
<u>FLOCK TOTAL (Av.)</u>	97	98	110	4.1	76 (217)	68	109	4.0

<sup>++</sup> Number of hogs given in brackets.

+ Includes 19 Cheviot hogs.

\* No hogg weights given as no sheep were inbred in 1962-63.

Table 4

Weaning Weights (lb.) and Losses of Lambs, 1963-64

Heft	Weaning Weights				Wt. of Lamb Weaned per Ewe $\emptyset$	Losses of Lambs			
	Singles		Twins <sup>+</sup>			Mated	Birth to Mark.	Mark. to Wean.	Total to Wean.
	No.	Wt.	No.	Wt.					
<u>CAIRN</u>	41	65	66	54	62	22	5	27	18
<u>FINELLA</u>	60	69	70	52	65	31	-	31	17
<u>BIG HILL</u>									
Main Flock	83	62	46	50	54	18	10	28	17
Lewis	32	60	8	49	53	3	-	3	7
<u>INBREEDING EXPERIMENT</u> <sup>*</sup>									
Inbred Progeny	4	52	-	-	5	9	1	10	71
Outcross Progeny	34	57	8	47	31	10	-	10	18
<u>BIG HILL TOTAL</u>	153	60	62	50	40	40	11	51	18
<u>FLOCK TOTAL</u>	254	63	198	51	50	93	16	109	18

<sup>+</sup> Exclusive of twins reared as singles.

$\emptyset$  Inclusive of twins reared as singles.

\* All progeny in the Inbreeding Experiment produced outcross lambs in 1964.

B. LEPHINMORE

Table 5

Reconciliation in Numbers of Ewes by Hirsal, 1963-64

	Ewes and Gimmers Nov. 1963	Ewes		Deaths <sup>+</sup> Nov./Nov.	Gimmers brought in Nov. 1964	Ewo Transfers		Ewes and Gimmers Nov. 1964
		Draft	Cast			(-)	(+)	
Barnacarry	185	34	1	13 (2)	37	-	2	176
Low End	185	27	4	12 (6)	41	-	-	183
Mid Hill	282	41	2	8 (1)	74	2	-	303
Total	652	102	7	33 (9)	152	-	-	662

+ Inclusive of Black Loss noted in brackets.

Table 6

Lambing Percentages, 1963-64

	Ewes to Tup	Tup Eild & Abortions	Ewes Dead Nov./April	Lambs Born		Lambs Marked			Lambs Weaned %
				Total	%	Total	%	% 1963	
Barnacarry	185	13	2	+181 (17)	97.8	149	80.5	68.4	69.2
Low End	185	13	1	++185 (17)	100.0	161	87.0	74.7	84.9
Mid Hill	282	19	2	+++293 (40)	103.9	269	95.4	82.4	90.4
Total	652	45	5	659 (74)	101.1	579	88.8	76.0	82.8

+ Includes 4 born dead

++ " 11 " "

+++ " 11 " "

Pairs of twins noted in brackets under Total Lambs Born

N.B. Abortions not shown above - Barnacarry 6, Low End 3, Mid Hill 8

Table 7

Weights of Ewes and Hogs and Fleeces (lb.), 1963-64

	Ewes				Hogs			
	Oct. 1963	April 1964	Oct. 1964	Fleece	Oct. 1963	April 1964	Oct. 1964	Fleece
Barnacarry	106.7	+99.3	106.2	4.2	57.8	60.9	88.0	3.4
Low End	103.7	+97.3	102.4	4.5	58.9	61.0	85.6	4.2
Mid Hill	98.4	+94.5	99.8	4.2	59.2	62.4	85.8	3.9
Average	102.4	96.5	102.2	4.3	58.8	61.6	86.3	3.9

+ Excludes ewes inbye (fed concentrates)

Table 8

Weaning Weights (lb.) and Losses of Lambs, 1963-64

	Weaning Weights				Wt. of lamb weaned per ewe mated	Losses of Lambs				
	Singles		Twins			Birth to Marking	Marking to Weaning	Total	%	% 1963
	No.	Wt.	No.	Wt.						
Barnacarry	99	59.9	12	58.3	41.1	32+	21	53	29.3	32.7
Low End	125	62.8	14	60.9	53.1	24++	4	28	15.1	14.7
Mid Hill	185	60.1	42	56.6	53.5	24+++	14	38	13.0	17.7
Totals.	409	60.9	68	57.8	49.9	80	39	119	21.0	21.7

+ Includes 4 born dead

++ " 11 " "

+++ " 11 " "

C. SOURHOPETable 9Reconciliation of Ewe Numbers, 1963-64

Heft	Ewes and Gimmers Nov. 1963	Cast Ewes	Deaths of Ewes and Gimmers	Gimmers brought in Nov. 1964	Hoggs Born 1964	Ewes and Gimmers Nov. 1964
<u>S.C. Cheviot</u>						
Fasset <i>{ Wethers Ewes</i>	144	51	8	36 <sup>x</sup>	<i>14</i> 21	121
Rigg	139	24	5	34	35	144
Gairs	124	14	9	28	39	129 <sup>/</sup>
Park Law	200	39	10	45 <sup>x</sup>	50	220 <sup>/</sup>
Auchope	201	30	11	50	54	210 <sup>/</sup>
Hairney Law Far	112	26	2	-	-	60 <sup>/</sup>
Total	920	184	45	193	199	884
<u>N.C. Cheviot</u>						
Hairney Law Near	137	27	3	37 <sup>x</sup>	37	144
Hairney Law Far	-	-	-	34	35	34
Total	137	27	3	71	72	178
<u>Blackface</u>						
Schil	351 <sup>+</sup>	65	6	75	79	355
Fasset <i>{ Ewes Wethers</i>	-	-	-	22	21 <i>10</i>	22
Total	351	65	6	97	100	377
Flock Total	1408	276	54	361	371	1439

x Excludes 9 cast from Fasset, 1 cast from Park Law,  
1 cast from Hairney Law Near.

+ Includes 2 ewes added to flock at November 1963.

/ 24 Ewes transferred from Hairney Law Far to Park Law.

Table 10

Lambing Percentages, 1963-64

Heft	Ewes to Tup	Tup Bld and Abortions	Ewes Dead Nov.-April	Lambs Born		Lambs Marked			Lambs Weaned		
				Total No.	%	Total No.	%	% 1963	Total No.	%	
<u>S.C. Cheviot</u>											
<u>Southside</u>											
Fasset	144	14 (1)	5 <sup>x</sup>	148 (24)	103	127	88	65	124	86	
Rigg	139	11 (3)	2	132 (9)	95	107	77	73	103	74	
Gairs	124	12 -	-	126 (14)	102	108	87	79	103	83	
	407	37 (4)	7	406 (47)	100	342	84	72	330	81	
<u>Park Law</u>											
Free Grazing	100	4 (5)	2	97 (8)	97	82	82	59	81	81	
Controlled Grazing	100	10 (5)	-	94 (9)	94	75	75	66	74	74	
	200	14 (10)	2	191 (17)	96	157	79	63	155	78	
<u>Auchope</u>											
Selection	96	5 (1)	-	107 (17)	111	90	94	80	86	90	
Control	105	9 (4)	2	107 (17)	102	94	90	85	91	87	
	201	14 (5)	2	214 (34)	107	184	92	83	177	88	
<u>Hairney Law Ear</u>	112	12 (3)	2	112 (16) <sup>x</sup>	100	90	90	70	89	80	
TOTAL S.C.C.	920 <sub>898</sub>	77 (22)	13	923 (114)	100 <sub>116</sub>	773	84	72	751	82	
<u>N.C. Cheviot</u>											
<u>Hairney Law Near</u>	137 <sub>130</sub>	6 -	1	159 (29)	116 <sub>122</sub>	152	111	93	135	99	
<u>Blackface</u>											
<u>Banks and Brow</u>	182	9 (4)	3	198 (32)	109	168	92	65	168	92	
<u>Alderhope</u>	169	36 (6)	-	152 (25)	90	132	78	67	128	76	
TOTAL B.F.	351 <sub>293</sub>	45 (10)	3	350 (57)	100 <sub>119</sub>	300	86	66	296	84	

x 1 Ewe on Fasset cast before lambing is included.

x 1 Set of triplets included.

'/' Pairs of twins in brackets but included in total.

Table 11

Weights of Ewes, Hogs and Fleeces (lb.), 1963-64

Hoft	Ewes					Hogs				
	Weights			Fleece July 1964	Deaths (%)	Weights			Fleece June 1964	Deaths %
	Nov. 1963	Apr. 1964	Nov. 1964			Nov. 1963	Apr. 1964	Nov. 1964		
<u>S.C. Cheviot</u>										
<u>Southside</u>										
Fasset	111	101	108	-	5.6	61	55	98	-	-
Rigg	104	92	106	-	3.6	63	51	95	-	5.6
Gairs	109	97	108	-	7.3	61	51	93	-	9.7
Average	108	97	107	-	5.4	62	52	95	-	4.5
<u>Park Law</u>										
Free Grazing	109	101	106	4.3	7.0	60	52	89	4.4	4.0
Controlled Grazing	114	110	111	4.8	3.0	65	57	91	4.1	-
Average	112	105	108	4.6	5.0	63	54	90	4.3	2.0
<u>Auchope</u>										
Selection	100	98	101	3.5	5.2	63	56	93	3.8	6.9
Control	102	101	100	4.1	5.7	59	52	86	4.0	4.2
Average	101	99	100	3.8	5.5	61	54	90	3.9	5.7
<u>Hairney Law Far</u>	108	100	111	-	1.8	-	-	-	-	-
S.C.C. Average	107	100	106	*	4.9	62	53	93	**	4.2
<u>N.C. Cheviot</u>										
<u>Hairney Law</u>										
Near	124	118	123	-	2.2	69	66	108	3.8	-
<u>Hairney Law</u>										
Far	-	-	-	-	-	66	58	106	-	2.9
N.C.C. Average	124	118	123	*	2.2	67	62	107	**	1.4
<u>Blackface</u>										
<u>Banks and Brow</u>	106	100	105	-	2.2	67	56	92	-	7.5
<u>Alderhope</u>	107	99	112	-	1.2	64	53	96	-	5.0
<u>Fasset</u>	-	-	-	-	-	-	-	110	-	-
B.F. Average	106	100	108	***	1.7	66	55	98	****	6.3

\* Overall Cheviot ewe fleece average 4.1  
 \*\* Overall Cheviot hogg fleece average 4.4  
 \*\*\* Overall Blackface ewe fleece average 3.8  
 \*\*\*\* Overall Blackface hogg fleece average 4.9



Table 12

Weaning Weights (lb.) and Losses of Lambs, 1963-64

Heft	Weaning Weights				Weight of lamb weaned per ewe mated	Losses of Lambs			
	Singles		Twins			Birth to Marking	Marking to Weaning	Total	%
	No.	Wt.	No.	Wt.					
<u>S.C. Cheviot</u>									
<u>Southside</u>									
Fasset	90	53.0	23	40.6	43.2	21	3	24	16.2
Rigg	92	51.1	1	53.0	37.8	25	4	29	22.0
Gairs	80	53.5	14	42.9	43.3	18	5	23	18.3
	262	52.5	38	41.7	41.4	64	12	76	18.7
<u>Park Law</u>									
Free Grazing	66	51.5	8	35.6	39.7	15	1	16	16.5
Controlled Grazing	60	54.2	4	47.5	39.4	19	1	20	21.3
	126	52.8	12	39.5	39.6	34	2	36	18.8
<u>Auchope</u>									
Selection	61	49.0	12	38.8	42.3	17	4	21	19.6
Control	63	49.7	14	35.9	40.4	13	3	16	15.0
	124	49.4	26	37.2	41.3	30	7	37	17.3
<u>Hairney Law Far</u>	66	48.5	4	39.2	37.3	22	1	23	20.5
TOTAL S.C.C.	578	51.4	80	39.8	40.5	150	22	172	18.6
<u>N.C. Cheviot</u>									
<u>Hairney Law Near</u>	90	60.9	32	54.1	58.0	7	17	24	15.1
<u>Blackface</u>									
<u>Banks and Brow</u>	124	57.4	26	44.9	51.1	30	-	30	15.2
<u>Alderhope</u>	91	62.9	26	51.2	45.5	20	4	24	15.8
TOTAL B.F.	215	59.7	52	48.0	48.4	50	4	54	15.4