


Not for Publication

  
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HILL FARMING RESEARCH ORGANISATION

FARM REPORTS AND SUMMARY OF FLOCK RECORDS

YEAR ENDED OCTOBER 1962

I FARM REPORTS - 1961-62

A. GLENSAUGH

Weather

In November rain fell on 9 days but was less than the seasonal average. Snow fell on 3rd and 4th November but lay for one week only. There was ground frost throughout the month. December and January brought more snow followed by gales in the latter part of January. Roads were blocked at various times. In February the ground was almost free of snow until the last week but gales were present throughout most of the month. March brought more snow and high winds. The last snow of the year fell on 7th April but lay for one day only. High winds and frost persisted throughout the month, but 198.8 hours of sunshine were recorded, the highest monthly total of the year. The winds persisted throughout May, June and July with a reasonable amount of sunshine although there were also dull, cloudy days. August and September were wet and cool with rain on 46 days out of the 61. October was cloudy with little sunshine and with air and ground frost throughout the month. Little rain fell and the total of 00.74 in. made it the driest month of the year.

Weather Records, November 1961 - October 1962

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1961</u>			
November	1.47	88.4	39.7
December	4.55	52.8	34.1
<u>1962</u>			
January	3.39	70.9	36.3
February	1.47	81.1	38.1
March	2.16	118.0	34.8
April	1.62	198.8	41.8
May	2.43	161.6	47.6
June	1.13	173.2	53.3
July	3.70	132.8	52.5
August	6.20	166.2	53.4
September	4.38	58.4	50.7
October	0.75	75.1	48.1
Total	33.25	1377.3	

1960-61	39.41	1148.8
1959-60	60.08	1360.5
1958-59	29.02	1419.5
1957-58	52.48	1183.0
1956-57	42.26	1271.3
1955-56	43.64	1373.3
1954-55	27.84	1557.8
1953-54	42.53	1162.3

Precipitation occurred on 187 days and sunshine was recorded on 290 days.

SHEEP

There was a little snow at the beginning of tuppung and then a clear spell followed by snow again at the beginning of December. Weather was frosty./

frosty. Topping went fairly well despite the snow.

Because of snow, storm feeding of sheep was necessary during the following spells:- 5th - 12th December, 29th December - 6th January, 13th - 15th January, 2nd - 8th March. This was in addition to the supplementary feeding of pregnant ewes which started on 14th February. The Cairn and Finella hill ewes received concentrates and the Big Hill ewes were on turnips. Ewe hogs were allowed access to the kale break in the forenoons from 10th January.

January, February and March were cold, wet months and the ewes were only in fair condition when lambing commenced on 5th April. All ewes were lambed inbye and because of experimental programmes the Cairn ewes remained inbye until the end of May. Growth was slow both on the hill and the low ground due to cold weather. The number of lambs born was about average and some 12% better than 1961. Lamb mortality was high during and immediately after lambing, and from 567 ewes and gimmers put to the tup 550 lambs were weaned, giving a weaning percentage of 97. This figure includes the inbred experiment on the Big Hill.

Weaning weights for lambs were 60 lb. for singles and 51 lb. for twins.

The 550 lambs weaned from the hill flock were disposed of as follows:-

204	ewe lambs retained for breeding.
25	wedder lambs transferred to Sourhope for experiments.
31	wedder lambs sold store at 84/6d.
93	mixed ewe and wedder lambs sold fat (F.M.C.) at 107/-.
139	wedder lambs sold fat (after use in experiments) at 113/-.
51	mixed ewe and wedder lambs still on hand (10.12.62).
7	lambs dead
<hr/>	
550	
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Of the 204 retained for flock replacements, 64 are for the inbreeding experiment. All ewe hogs are being wintered on the Lochhills area.

The average fleece weight of the hill ewes was 4.3 lb. for the regular stock and 3.6 lb. for the inbred ewes.

Six Blackface tups were purchased in Perth for the hill at an average cost of £44.

As in autumn 1961, about 100 cast ewes have been retained for breeding cross lambs on inbye fields, and a further 45 retained for experiments. All other cast ewes were sold as feeding sheep.

In order to effect a better utilisation of the inbye land, 104 draft ewes were retained in September 1961 for breeding cross lambs. The ewes retained were a mixed lot of all four Blackface strains. Three (1 Border Leicester, 1 North Country Cheviot and 1 Teeswater) rams were used on 92 ewes and a Blackface ram on the other 12 ewes. Because there was a possibility of a shortage of grass for both grazing and conservation, it was decided to try out forward creep grazing and in early spring a 14 acre field was top-dressed with 3 cwt. of Nitro-chalk per acre and divided into 8 paddocks of equal size. This field was in third year grass, and had been cut for hay in the previous two years.

Lambing commenced in early March and all ewes lambed within 28 days. Grass growth was very slow in the spring, and the flock did not get on to the creep field until 25th April. 153 lambs were born, a lambing percentage of 147. Five of these died at birth from exposure and 7 lambs died from a /

a heavy worm infestation while on the creep field. 141 lambs were weaned on 30th July, i.e. 135%. Five ewes were barren and one ewe died of grass staggers.

Weaning Weights and Grading Weights of Lambs

Sire of Lambs	Weaning Weights		Weights at Grading (lb.)*			
	No.	Average Weight (lb.)	No.	Liveweight	Carcass Weight	Killing-out %
Border Leicester	68	68	10	101	42	41
Teoswater	27	66	9	98	42	43
N.C. Cheviot	34	65	7	91	40	43
Blackface	12	67	4	70	36	40
Total/Average	141	67	30	96	40	42

\* These weights are those of 30 lambs selected as fit for grading on 22nd August.

During the period 25th April to 30th July, the lambs on the creep gained a total of just over 8,000 lb. liveweight, or 571 lb. lamb per acre. Twenty ewes were sold fat off the creep field, adding a further 400 lb. of mutton or 28 lb. per acre. The final figure for production per acre of grass is about 600 lb. Between August and November, 32 Greyface ewe lambs were sold at 110/- per head and 107 lambs sold fat at an average of 111/7<sup>1</sup>/<sub>2</sub>d.

CATTLE

The breeding herd numbered 87 head at the beginning of the year. Eighty-four calves were born (82 singles and one set of twins) and 4 cows were barren. Of the 84 calves born, 11 were dead at birth and 8 died soon after birth. The number of homebred calves weaned was 65.

The performance of the breeding herd was again disappointing with far too great a number of deaths in the calves, due mainly to abortion and white scour.

Abortion is still present in the herd and presents a serious problem. It is proposed in 1963 to calve all cows outside (in 1961 16 calving heifers carrying first calves were inside) and on level fields in the hope that this may reduce the scour and also avoid any abortions partly due to movement of cows near the calving on steep slippery ground.

Twenty-three calves were brought in for fostering, of which 2 died. Altogether, 86 calves were weaned.

The calves purchased locally to replace dead calves are from dairy herds and the low quality of calf available make these a doubtful economic proposition when they have to be resold as stores.

During the year, 4 cows died of "grass staggers" and 5 were sold, so that there are now 78 cows, due to calve-down over the winter of 1962-63.

Liveweight/

Liveweight of Cows - October 1962

Breed	No.	Average Weight (lb.)
Highland	1	1232
Galloway	2	1092
Shorthorn x Highland	15	1079
Shorthorn x Galloway	20	1182
Aberdeen Angus Crosses	27	1083
Hereford Crosses	3	1176
Shorthorn Crosses	10	997
<b>Total/Average</b>	<b>78</b>	<b>1102</b>

A White Shorthorn bull was purchased at Perth in February of this year for 240 guineas. This bull will be used on the 14 Galloway heifers in April 1963. Bulls used during the season were as follows:-  
1 Aberdeen Angus, 1 Shorthorn and 1 Hereford.

Eighty-six calves were weaned, of which 21 were bought-in fostered calves. Calf losses were high, 21 dying over the calving period. The deaths may be summarised as follows:-

Source	No.	Cause of Death
Home-bred calves born dead	11	6 positive B. abortus. 2 dystokia - large calves. 3 no definite cause.
Died soon after birth	8	5 white scour. 2 small - very poor weak calves. 1 pneumonia.
Bought-in calves	2	1 white scour. 1 pneumonia.

iv. Weaning Weights of Home-bred Calves, October 1962

Sire of Calves	Male		Female	
	No.	Weight (lb.)	No.	Weight (lb.)
Aberdeen Angus	17	528	13	493
Shorthorn (Beef)	6	568	11	556
Hereford	8	530	10	434
<b>Total/Average</b>	<b>31</b>	<b>536</b>	<b>34</b>	<b>496</b>

Thirty-four calves were sold at weaning, 18 black and 16 coloured calves. In most cases the coloured calves were of a better type but the usual preference of feeders for black cattle was reflected in the trade. These calves had all been creep fed, each consuming about 2 cwt. of concentrates (72/-) and the increased weight of the calves was more than adequate to cover this cost.

Aberdeen Angus Cross Calves,  
September 1962

	<u>Average Weight</u>	<u>Average Price</u>
14 Bullocks	566 lb.	£41 2 -
4 Heifers	544 lb.	£35 15 -

Cross Shorthorn, Highland and Hereford Calves,  
October 1962

	<u>Average Weight</u>	<u>Average Price</u>
12 Bullocks	566 lb.	£33 17 -
4 Heifers	592 lb. (includes one at 672 lb.)	£31 5 -

All other calves, 52 in number, are being wintered.

In the spring, 20 one year old bullocks were sold at £48 10/- per head and 10 year old heifers at £45 13/-. During autumn, 15 bullocks made £62 18/- and 12 heifers £63 15/-. These latter heifers were all fit for slaughter.

Cropping 1962

<u>Grain</u> (acres)	<u>Roots</u> (acres)	<u>Grass</u> (acres)
Oats - 35	Potatoes - 1.8	Silage - 60
	Turnips and	Hay - 50
	Swedes - 11.5	Grazing, including
	Kale - 2	Reseeds - 148
	Rape - 22	

Oats - Variety, Blenda. All grain grew and looked well although a bit on the late side. Apart from a few patches all stood well and cut without trouble with the binder. Due to the adverse weather during harvest, two thirds of the crop was taken into small huts of 200 - 250 sheaves and in this manner the harvest was won in safety although the condition of some of the grain was not of the best. The new silage building was made into a drying shed by fitting a temporary slatted floor and the worst of the crop was taken there where it kept well.

Some 5 tons of grain have been sold but the price is such that it may well be more profitable to feed than to sell.

Pasture - Grass this year was slow to get away due to cold barren weather and was again checked in June with a further dry, cold spell.

Silage - Due to late growth the first cut was light but despite this the overall quantity and quality was good. The two pits at the steading were filled and covered with the polythene covers from last year. Grass was cut, wilted and then picked up with the Silage maste. Some 220 - 250 tons were made. This will be the last year of the open pits as the new silage building is now complete.

Hay - Generally speaking, the growth of grass for hay was poor and the resultant crop light but got in good condition. Hay was purchased to make up for the deficiency in bulk.

Roots - Resistant varieties of yellow turnips and swedes were sown to reduce losses by Finger and Toe. Weather conditions seemed to suit the crop/

crop and a good yield of both turnips and kale has been obtained.

Rape crops in the Lower Croft and the upper part of the Redstones were good but in the lower part of the Redstones where discing only was carried out a heavy growth of Italian Ryegrass from the previous year smothered out a fair proportion of the rape.

#### Reclamation

About 6 acres of rough land were ploughed on contract in the Upper Redstones and worked together with the area regenerated in 1961 as a rape break. Together they extend to some 16 acres and will be rape again in 1963 followed by a sow out in 1964.

#### Heather Burning

With the exception of fire traces on Finella burned by the Forestry Commission, no burning was carried out in 1962.

#### Fencing

A new hill paddock for the Cairn experiment was formed on the Birnie Hill and is now called the Birnie Heather Plot.

Some 800 yards of new fencing has just been erected to replace an old derelict fence from the feeding stance in the Lochhills round the Hard Park.

In addition to this, new fences were erected as and where required by the contractors on the Loch Lee Water Scheme where damage was caused by the pipe line.

#### Drainage

A number of drains were renewed or replaced by the pipe line contractors where damage to existing drains was caused.

#### Buildings

A number of new buildings have been erected this year. The first was a battery of garages, 4 in number, behind the old laboratory building, for the use of experimental staff. This was followed by a large pre-cast concrete silage cum hay cum implement shed at the steading and lastly the new office/laboratory building in Cedar wood is nearing completion. The old cottage at the Bows house has been gutted by the farm staff for use as a store and now awaits the making of a large access door.

#### Access Roads

Use was made of the Pipeline Bulldozer to improve access roads to fields and hills in return for some of the damage caused by the scheme. A completely new access to the new reseed next to the Forestry Commission across the waste ground at the head of the loch has been provided.

### B. LEPHINMORE

#### Weather

November 1961 opened with heavy showers and strong winds, but from the 9th onwards the weather improved and the month ended with snow on the hill tops. In the first week of December the snow extended over both hill and low ground and sheep were lying very low. The rest of the month was fairly good, but very cold over the Christmas period, with prolonged spells/

spells of dry sunny weather and continuous frost. A return to milder weather occurred early in the New Year. In general, January and the first part of February were characterised by heavy rain and high winds. The end of February was dry, but cold with strong east winds. March on the whole was very dry and cold, although the last week brought snow on the tops and rain and sleet below. Unlike 1961, no growth was experienced in February or March and sheep were showing signs of hunger at this time, particularly on Barnacarry. April weather was similar - very cold with frost at night. Although quite sunny, the days were kept cold by north and east winds. Dry, but warmer weather continued throughout lambing and it was not until the end of April that growth started. May continued cold, but fairly dry. June was a mixed month, warm and sunny to begin with, the second week broken, third very wet with strong winds and prolonged heavy rain at times and this continued, with a slight improvement towards the end of the last week. July was completely out of character in being dry and sunny for the first three weeks and the importance of this period in 1962 as regards ease of haymaking and more importantly ewe and lamb condition at weaning cannot be over-stressed. The last 10 days of July were broken with fair amounts of rain. August was mainly wet and cold and consequently growth which up until then had been below average, continued so. September showed a slight improvement, but remained unsettled into the second week. Thereafter September was fairly good, not over sunny, but at least dry. October was also dry and mild and the autumn as a whole was the best for many years, conditions for sheep and cattle and in particular fattening lambs, being excellent. Growth was well above average and as a result all stock are facing the winter in good condition.

Weather Records, November 1961 - October 1962

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1961</u>			
November	5.12	62.7	42.5
December	4.68	35.0	36.3
<u>1962</u>			
January	13.05	17.2	39.8
February	6.56	64.9	40.7
March	3.34	97.6	37.4
April	4.05	192.8	46.1
May	2.60	171.2*	50.3
June	4.58	134.7	53.7
July	3.42	119.7	55.9
August	9.18	108.4	55.1
September	7.89	78.1	53.1
October	3.84	55.5	51.3
Total	68.31	1137.8	

\* Estimated figure.

1960-61	81.55	1057.9
1959-60	60.79	1291.6
1958-59	51.86	1289.4
1957-58	62.66	1117.6
1956-57	75.78	1300.7
1955-56	59.81	1321.0
1954-55	67.16	1541.7
1953-54	86.72	1164.1



SHEEP

In October 1961 ewe condition was good. In February, after a very wet and cold January, the Low-End ewes were the poorest of the three hirsels, but overall, condition was better than at the same period in 1961. At udder locking on 9th April, the Mid-Hill hirsel was fittest, followed by Barnacarry. The Low-End ewes, although lean, had a good show of milk, with the exception of the gimmers. Barnacarry gimmers on the other hand had a better show at this time.

Ewes which lambed in the first week, i.e. beginning 16th April, were short of milk and this was reflected in the lambs. By the second week milk was generally in fair supply, apart from the Low-End gimmers. A great deal of mothering was required in this group, many lambs being temporarily abandoned; of these many fell into drains and that they were found alive was due entirely to the dry weather at lambing time.

At clipping time the rise on Barnacarry and Low-End was fair, while Mid-Hill was poor in comparison. The latter appeared to have received a check at some time and this may have been either when feeding stopped at lambing or more probably when going back to the hill after lambing inbye.

At the end of August, Mid-Hill and Low-End ewes were in good condition, while those on Barnacarry were slightly worse and lacked the bloom of the other two hirsels. It is probable that this was a carry-over from the starvation conditions in the spring, alleviated on Mid-Hill and Low-End to a large extent by supplementary feeding.

In October 1962 there was little to choose between the Low-End and Barnacarry ewes as regards condition and fitness. Mid-Hill ewes had slightly less condition, but this difference was not appreciable and of little importance as far as winter performance is concerned. In the last year the ewes have come through a fairly severe winter, a very late cold spring and an indifferent summer, and that they now approach winter in excellent condition illustrates once again the invaluable recuperative powers of the breed.

Overall numbers of lambs weaned was down to 77% from 82% in 1961. In view of the adverse weather conditions in 1962 this drop is less than might be expected. Taking individual hirsels, the reduction of 8% on the Mid-Hill hirsel to 88% was due entirely to the reduced number of twins born, brought about by tupping on the hill instead of inbye as in previous years. The weaning figure on Low-End was the same in both years, namely, 71%. Without supplementary feeding this figure would probably have approached that of 1958 (52%), although allowance must be made this year for the unusually dry weather at lambing time and the consequent reduction in death by drowning of young lambs. Only on Barnacarry was the weaning percentage down and the drop of 6% to 69% was a seasonal one occasioned by the late spring and late growth of grass. Throughout the summer the Low-End lambs were the best grown, followed by the Mid-Hill. Barnacarry lambs never fully recovered from their poor start at birth. Despite the fact that August was so wet and cold, lambs in general were well grown at weaning and in better than average condition. The top draw of wether lambs was the best, both for size and condition, for many years. Small lambs were also fatter than average. Lewis type lambs again appeared to be in better condition and to fatten more readily than those of the other types, i.e. Newton Stewart, Lanark and Swaledale. On going to wintering, the hoggs from Low-End were best, followed by Barnacarry and Mid-Hill. Order of merit on the Mid-Hill was:- Lanark, Newton Stewart, Lewis and Swaledale. The Lanark type hoggs were larger framed than the Newton Stewart, but there was little evident difference in wool type (all the 1962 lamb crop was sired by Lanark type rams). The Lewis strain was the most improved of all by the back cross, as was the Swaledale to a lesser degree, the latter still tending to be inferior in conformation.

The top draw of wether lambs was sold store in September at Stirling and/

and averaged 89/6d. per head, an increase of 17/- per head on 1961 and 10/6d. per head on 1960. The average live weight of these lambs was 69 lb. This top draw was smaller in number this year, as a proportion of the best wether lambs were left uncastrated at marking. These were eventually sold fat through the Central Meat Market in Edinburgh. A total of 54 wether lambs were sold store in early September at an average price of 66/6d. per head and 163 were sold fat in October and November at 87/- per head. Fifty shott ewe lambs averaged 62/- in early September in the store market and a further 20 were sold fat at an average price of 87/- per head.

Fat Lamb Prices, 1961-62  
(Fatstock Marketing Corporation)

Year	No.	Carcass Weight (lb.)	Price per Head
1959	139	29	90/6d.
1960	85	27½	78/6d.
1961	133	28	90/-
1962	94	27½	81/3d.

Cast Ewe Prices

Year	No.	Price per Head
1959	68	29/6d.
1960	56	60/-
1961	59	51/-
1962	43	62/-

Sixty cast ewes were sold privately in 1962 to the Moredun Research Institute for a research programme.

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/-

A total of 89 fat lambs were sold through the Central Meat Market in Edinburgh at an average price of 92/-.

All prices quoted are before the addition of producer transport allowances and deduction of standard handling charges and before deduction of commission dues.

Barnacarry and Low-End hogs were again wintered on the Island of Bute and came home in rather poorer condition than in previous years. Mid-Hill hogs at Point Farm, Ardlamont, wintered extremely well and gained in body weight as opposed to a slight loss over the winter on the other two hirsols.

Supplementary/

Supplementary Feeding

Supplementary feeding with cubed concentrates was continued on the Mid-Hill and Low-End hirsels in 1962. On Mid-Hill, feeding started on 5th March and stopped on 13th April when the ewes came inbye for lambing; due to the bad season the gimmers were fed until the end of April. A total of 23 cwt. was fed to a number varying from 210 - 244 ewes. On Low-End feeding also started on 5th March, but was continued until 30th April. 140 ewes were estimated to be feeding and consumed 15 cwt. over the feeding period.

CATTLE

Two pure Highland cows and 27 Shorthorn x Highland cows and in-calf heifers were over wintered. One 3 year old heifer was barren and one calf died at birth through weakness and exposure when a heifer calved in adverse weather. One 2 year old heifer bulled by accident the previous summer calved and reared. The total crop of 28 calves were sold in the autumn at Strachur and Dalmally Marts, 12 bullocks realising £36 10/- per head to a top of £43 per head for a pen of 4. Sixteen heifers averaged £23 10/- per head, with a top price of £28. Two heifers and one bullock calf over wintered were sold in April 1962, the heifers fetching £40 per head and the bullock £46. All calves were from an Aberdeen Angus bull. The 1962 calf crop was creep fed from 13th August until the sale on 19th October. Some difficulty was experienced and a great deal of patience required initially, but by 20th August all the calves were feeding. From 13th August until 9th September the cattle were kept in the downfall and the calves fed daily from troughs placed in a creep constructed of wooden stobs and wire netting. Feeding by this method tended to be time-consuming in that once the cows realised that access was barred to them, it was necessary to bring the whole herd down to the creep, the calves not being willing to make the journey themselves. On approaching the creep the calves readily separated from the herd and entered to feed. Unless ad lib. feeding is practised, the system would appear to be more readily workable where the herd is maintained in a confined area, such as an inbye field, rather than on the hill even though this may be fenced. An improvement in calf growth and condition was noted after only two weeks of feeding. At weaning, in comparison with other years, they were fleshier and firmer across the back. That they were not heavier than in other years is no reflection on the creep feeding, but rather due to the adverse weather the calves experienced in the first five months of life. Feeding rates were as follows:-

13th - 19th August	- 1 lb. per head per day.
20th August - 11th September	- 1½ lb. " " " "
12th September - 19th October	- 2½ lb. " " " "

Total feeding per calf was 137 lb., or approximately 50/-. There is no doubt that this outlay was justified not only as regards the improvement in quality of the suckled calf, but also in the fact that the cattle were maintained on the downfall during August as ground improvers without detriment to the calves.

Liveweights of the cattle in November 1961 and November 1962 were:-

Age/

Age (years)	Description	November 1961		November 1962	
		No.	Weight (lb.)	No.	Weight (lb.)
8 $\frac{1}{2}$	Highland	-	-	2	906
7 $\frac{1}{2}$	"	2	935	-	-
6 $\frac{1}{2}$	S x H	-	-	7	995
5 $\frac{1}{2}$	"	7	1007	5	993
4 $\frac{1}{2}$	"	5	955	8	864
3 $\frac{1}{2}$	"	8	845	7	868
2 $\frac{1}{2}$	"	7	865	3	882
2 $\frac{1}{2}$	S x S x H	-	-	3	798
1 $\frac{1}{2}$	S x H	3	765	-	-
1 $\frac{1}{2}$	S x S x H	3	783	-	-

Average weaning weights of the Aberdeen Angus x Shorthorn x Highland calves and the Aberdeen Angus x Highland calves for 1961 and 1962 are as follows:-

Calves	AA x S x H 1961		AA x H 1961		AA x S x H 1962		AA x H 1962	
	No.	Weight (lb.)	No.	Weight (lb.)	No.	Weight (lb.)	No.	Weight (lb.)
Heifers	8	395	1	412	14	414	1	362
Bullocks	9	452	1	333	11	448	1	367

#### Arable Ground

Fields 4 North and South in rape and Italian Ryegrass in 1961 were strip grazed by the hill cows and calves and thereafter ploughed and directly reseeded with a Timothy/Meadow fescue mixture. 4 $\frac{1}{4}$  acres were sown with the mixture:-

- 15 lb. Certified S 215 Meadow fescue.
- 10 lb. Certified S 48 Timothy.
- 2 lb. Certified New Zealand Mother Seed White Clover.

The remaining 4 acres were given a similar mixture, with Swedish Timothy replacing the S 48. Field 3 North was cropped with  $\frac{1}{2}$  acre of potatoes and  $\frac{1}{2}$  acre of turnips and the remaining 2 $\frac{1}{2}$  acres were directly reseeded with S 22 Italian Ryegrass at 30 lb. per acre. Field 3 North was grazed during the summer. A cut of silage was taken from Field 4 in early August and the yield estimated at 4 tons of made silage per acre. The turnip crop was a complete failure due to root maggot fly and finger and toe disease.

Due to the late spring, growth was approximately 3 weeks behind normal and the first cut of hay was not made until 5th June. The field (3 South) was rucked on tripods on 7th and 8th June. Due to adverse weather no further cut was made until the end of June. An unusually dry spell in July saw all the hay crop secured with no difficulty. During the summer a total of 33 tons of hay and 40 tons of silage were made. Only Field 3 South was cropped twice, a second cut of silage being taken. A total of 183 lambs were fattened off aftermath. The total number of cow grazing day equivalents over the year was 5339 comprising:-

Sheep	3255
Cattle	2084

#### Drainage/

Drainage

Fields 8 Reseed and 8 West in the 25 acre hill park were tile drained in March 1962. In all, 10 acres were drained by cutting across the existing old rubble drains. No exact pattern was followed, the drains being placed where it was thought they would do the most good. In all, 58 chains were laid, comprising 2 chains of 6 inch, 15 chains of 4 inch and 41 chains of 3 inch tile, at a total cost of just under £200.

Fencing

Sub-division of the hill into its hirsels has now been completed. A further area of approximately 120 acres has been fenced on the Mid-Hill above the downfall. The Mid-Hill/Barnacarry fence was erected with high tensile wire and wooden stobs at 12 foot centres, with creosoted droppers between, thus reducing the cost considerably. A similar fence will be erected along the roadside at Barnacarry. The 3 strand barbed wire fence along the burnside in Field 1 was taken down and replaced with a sheep netting fence.

Regeneration

The rough triangle above the road at the steading was also fenced and during February and March the hill cattle were confined and fed on this area with a view to further improvement. This was followed by 3 tons per acre of ground limestone in the spring and by 10 cwt. per acre high grade basic slag in the autumn. If conditions are suitable, it is hoped to again winter the cattle here and thus prepare the ground for reseeding next spring.

Heather Burning

Approximately 70 acres were burned on Low-End on the heather ridge running north to south through the hirsle. A further 100 acres were burned on the Mid-Hill, mainly on the ridge next to Barnacarry. About 25 acres were burned in the newly fenced block on the Mid-Hill.

Mid-Hill Downfall Road

Good progress has been made with this work and the project should be completed early in 1963. Taken to the top of the tup park by the Forestry Commission as a joint project, a further half mile of road was cut into the Mid-Hill downfall, the Organisation bearing the full cost of this extension. So far only a rough track has been cut and it will be necessary to dig the drains and conduits and gravel and grade the road with farm labour.

C. SOURHOPEWeather

A generally rather dry and cool November and early December ended in an exceptionally cold period over Christmas and the New Year. Throughout the country this was considered to be one of the coldest Christmas periods of the century. The temperature at Sourhope fell to 10°F. in the early morning of 30th December, and failed to rise above freezing point throughout the following 2 days. Snow followed to a depth of 6 - 8", lasting about a week. Thereafter the weather remained changeable but fairly mild with snow towards the end of the month. Stormy periods in February were followed by a heavy snowfall towards the end of the month with much drifting. Unusually/

Unusually cold weather was experienced in March with a monthly mean daily air temperature of only 32.8°F. compared with 44.1°F. for March 1961. This cold weather continued well into April, but towards the end of the month, with the wind swinging into the south, there was a very marked improvement to sunny, dry, though slightly cool conditions. It is of interest to note that the soil temperature at the 4" depth reached 42°F. on April 20th for the first time since December 11th.

A very slow, late spring was followed by a very poor summer, only the first week of June being really sunny; thereafter small amounts of rain fell on most days. From June 20th recourse was made to the "fine weather spell" warning service of the Meteorological Office of the Air Ministry, who give forecast notice by telegram of a "fine spell", this being defined as a period of at least 72 hours without measurable rain. From June 24th to the end of September only two such warnings were received, the first being cancelled after 40 hours, the second after 24 hours, with heavy rain falling within 30 hours and 6 hours respectively of the start of the settled period.

Weather Records, November 1961 - October 1962

Month	Rainfall (inches)	Sunshine (hours)	Mean Daily Air Temp. °F.
<u>1961</u>			
November	2.74	63.5	40.3
December	2.07	53.8	34.1
<u>1962</u>			
January	3.62	56.7	36.5
February	1.36	72.8	37.2
March	2.66	92.2	32.8
April	2.77	141.0	41.8
May	3.72	136.4	46.7
June	1.32	150.7	52.7
July	3.06	97.7	53.8
August	3.26	133.4	53.5
September	5.82	56.5	51.5
October	0.88	105.4	48.3
Total	33.28	1160.1	

1960-61	29.01	1189.4
1959-60	47.7	1296.7
1958-59	21.0	1570.7
1957-58	33.7	1372.7
1956-57	32.8	1328.2
1955-56	37.0	1406.5
1954-55	26.9	1673.6
1953-54	39.9	1220.8

The total number of hours of sunshine was the lowest recorded at Sourhope.

SHEEP

The sheep stock, in excellent condition in November 1961, came through the winter to lambing in surprisingly good condition considering the long winter and late spring. Hay feeding started in earnest on 14th February and was continued without a break until the close of the first week of lambing. Lambing after the first week became much better and the season ended with lamb weaning percentages as high as in the favourable year of 1961. These were for the South Country and North Country Cheviots 88% and/

and 107% respectively, and for the Blackface, 102%.

Weaning weights of all single lambs of both South Country and Blackface showed a fall on average of 2 - 2½ lb. over the preceding year but N.C.C. single lambs were 5 lb. heavier on average. The North Country hirsol has again given an outstanding performance.

The wool clip, as might be expected, was slightly lighter, S.C.C. ewes clipping out about 1/3 lb. lighter, and the N.C.C. ewes about 2/3 lb. lighter than in 1961. The Blackface ewe clip showed no drop in weight.

Condition of the ewe stock prior to tugging this autumn is not so good as for the two previous years, largely as a result of the poor summer and autumn weather and this is borne out by the pre-tugging weights of both ewes and gimmers which show them to be 6 - 8 lb. lighter than at the same time last year.

Regular sheep stock on the hill continue to increase in number and in addition to the 22 Cheviot shearling and two-shear wethers on Rigg and Gairs, 10 Blackface wether lambs have been retained as the nucleus of a small wether stock for experimental purposes.

A very good trade was experienced for store lambs. Principal prices were:-

Date Sold	Breed and No.	Class	Assessed Quality at Weaning Time	Price (shillings)
16th August	50 S.C.C.	Wedder	1st	101
	35 S.C.C.	Wedder	3rd	88
	55 S.C.C.	Ewe and Wedder	4th	80
	32 N.C.C.	Wedder	1st	102
30th August	45 Blackface	Wedder	1st	88
	46 Blackface	Wedder	2nd	70
	70 Blackface	Ewe and Wedder	3rd	64
27th September	30 N.C.C.	Wedder	2nd	94
	37 N.C.C.	Ewe and Wedder	3rd	88
	50 S.C.C.	Ewe	4th	63
7th November	35 S.C.C.	Wedder	2nd and 3rd	80
	25 S.C.C.	Wedder	3rd and 4th	66
	10 N.C.C.	Ewe and Wedder	4th	80

The averages for store lambs sold were:-

473 South Country Cheviot Lambs - 69/-  
 244 Blackface Lambs - 65/-  
 109 North Country Cheviot Lambs - 93/-

Forty South Country Cheviot lambs were fattened on rape to grade at 95/6d., and a further 38 graded at 93/-.

Draft ewes were a difficult trade and that experienced for the over-age drafts was particularly disappointing.

South Country Cheviot draft ewes, 6 year old - 68/-.  
 South Country Cheviot draft ewes, 7 year old - 35/-.  
 Blackface draft ewes, 6 year old - 62/-.

All the Hairney Law draft ewes were transferred to Glensaugh.

CATTLE/

CATTLE

All the Blue Grey cows, together with 4 in-calf Galloway heifers were wintered on the near end of Hairney Law, being fed oat straw, hay and some concentrates. The 20 Galloway cows were wintered on Auchope hill where it was the intention to carry them through the winter as far as possible on concentrate feeding alone, allowing them to pull their own roughage requirement. Unfortunately, because of snow on the hill for long periods, straw and hay feeding had to be practised. The protracted length of the feeding period in winter and spring of 1962 is reflected in the winter feed costs of cows of the two groups:- Blue Grey cows, £15 16s. 9d. and Galloways, £13 -s. 6d. per head. (Home grown hay costed at £12 per ton). Anti-tetany cake was fed during and after calving and no hypomagnesaemic troubles were encountered.

Calving, which started on 31st January, proved a very difficult time. A total of 10 calves (including a pair of twins) were lost at birth or shortly thereafter, 7 being lost during the period from 27th February to 12th March when intensely cold weather occurred. A summary of the losses is:-

Perished just after birth as result of intense cold	- 3
Drowned	- 1
"Hung" calf (through night)	- 2
White scour	- 1
Negligence	- 3

Thus in the summer of 1962, of the 28 Blue Grey cows which came to calving, 19 were running with their own calves, 7 had lost calves but 3 of these had calves set on and 2 proved to be eild. Of the 24 Galloways, 19 were running with their own calves (of which one had later to be removed), 2 lost calves at birth and 3 were eild.

Cows and calves summered well and the autumn suckled calf sales proved very satisfactory. Thus 16 Aberdeen Angus x Blue Greys averaged £39 10/-, with bullocks at £47 and £46 and heifers £31 and £30. Seven Blue Grey calves, of which 4 made up a 2nd prize pen, averaged £39. All the 18 calves from Galloway cows were creep fed and consumed 50/- worth of calf nuts per head. This was a good investment.

In the spring of 1962, 15 over wintered calves from 1961 were sold to a top of £55 and an average of £48.

All Blue Grey cows were mated to the Aberdeen Angus bull, and the Galloways to the White Shorthorn. No further losses of cattle, apart from the 10 calves, occurred throughout the year.

Three Blue Grey and 5 Galloway cows have been cast this autumn, and in addition to 5 heifer calves being retained for stock, 11 bullock and heifer calves are retained for wintering.

Cattle/



Cattle Weights, October 1962

Cows			Sire of Calves	Weaning Weights of Calves			
Breed	No.	Weight October 1962 (lb.)		Male		Female	
				No.*	Weight (lb.)	No.	Weight (lb.)
Galloway	24	1098	White Shorthorn	11	449	7	421
Blue Grey	25	1133	Aberdeen Angus Galloway**	10	497	8	433
				1	650	1	543
Aberdeen Angus Cross	3	1315	-	-	-	-	-

\* Data for two bought-in calves and one hand reared calf not included here.

\*\* The two calves by the Galloway bull were born in October 1961.

Heifers in Calf

Galloway - 6 ( 898 lb.)  
Blue Grey - 5 (1076 lb.)

Bulling Heifers

Galloway - 4 (748 lb.)  
Blue Grey - 4 (840 lb.)

In November 1962 there were on the farm for wintering:-

Cows and in-calf heifers	55
Bulling heifers	8
Heifer calves for herd	5
Calves for sale in spring	12
Bulls	2
	<hr/>
	82
	<hr/>

Muirburn

Because of adverse weather conditions, no muirburn was carried out in 1962.

Cropping

Hay crops throughout were very light and a total of 59 acres cut yielded only 4490 bales, or 75 tons (reckoning 60 bales to the ton). In a most difficult season, the Lister Moisture Extraction Unit proved a most valuable aid to securing hay in good condition. The fuel cost varies from 15/- to 23/- per ton of hay dried, depending on its moisture content at baling.

Five acres of rape produced a good crop which was used together with hand feed in an investigation into the best method of fattening South Country Cheviot wether lambs.

The Banks field (5 acres) was directly reseeded with a Timothy meadow fescue seeds mixture.

Buildings/

Buildings

Six new garages were erected for the farm and experimental staff and these are now in use. In addition, extensive interior decoration of 3 farm cottages and one room of the hostel was carried out. Small hay-sheds have been built on Fasset Hill, and on both ends of the Park Law hirsol.

Fences

Breast wires have now been added to the whole length of the Sourhope-Swindon march fence and this has been of great benefit.

II SUMMARY OF FLOCK RECORDS FOR 1961-62A. GLENSAUGH

The following tables do not include the 1961 cast ewes retained on inbye fields.

Table 1

Reconciliation of Flock Numbers, 1961-62

Heft	Ewes and Gimmers 12th Nov. 1961	Disposals				Gimmers brought in at 12th Nov. 1962	Ewes and Gimmers 12th Nov. 1962	Hoggs Kept 1962
		Ewes Cast/Sold	Retained for Sheephouse	Retained for Crossing	Deaths Nov./Nov.			
<u>CAIRN</u>	104	-	-	16	5	29	112	39
<u>FINELLA</u>	130	2	-	28	11	41	130	45
<u>BIG HILL Strains</u>	162	14	41	8	14	53	138	56
Inbreeding experiment	171	6	2	-	7	36	192	64
Total	567	22	43	52	37	159	572	204

Table 2

Lambing Percentages, 1961-62

Heft	Ewes to Tup	Tup Eild	Ewes Dead*	Lambs Born		Lambs Marked			Weaning %
				Total <sup>♂</sup>	%	Total	%	% 1961	
<u>BIG HILL STRAINS</u>									
Lanark	40	-	-	48(8)	120	39	98	105	93
Newton Stewart	41	1	1	48(9)	117	45	110	118	110
Lewis	41	-	4	48(11)	117	45	110	112	110
Perth	40	1	1	48(10)	120	37	93	110	90
<u>INBREEDING EXPERIMENT</u>									
Lambs Inbred	114	21	1	121(29)	106	78	68	77	66
Lambs Outcross	55	1	-	76(22)	138	65	118	95	116
<u>FEEDING EXPERIMENTS</u>									
<u>Finella<sup>+</sup> (Protein Levels)</u>									
Group A = 17% Supp. Protein	44	4	-	49(9)	111	41	93	-	93
" B = 7% " "	43	2	-	52(11)	121	40	93	-	91
" C = 7% " "	21	-	-	30(9) <sup>♂</sup>	143	25	119	-	119
" D = Unfed	22	3	2	27(9) <sup>♂</sup>	123	16	73	-	73
<u>Finella Total</u>	130	9	2	158(38) <sup>♂</sup>	122	122	94	98	93
<u>Cairn (Mineral dosing)</u>	104	3	-	142(41)	137	118	113	89	110
Flock Average (Excluding Inbred)	451	15	8	568(139) <sup>♂</sup>	126	471	104	101	102

\* Ewes dead - November to April.

<sup>♂</sup> Pairs of twins noted in brackets.

<sup>♂</sup> Includes one set of triplets.

+ The groups A, B, C and D on Finella represent the different age groups of the ewes, i.e., Group A = born 1959 on 17% Supp. Prot.

" B = " 1959 " 7% " "

" C = " 1956 and 1957 on 7% Supp. Prot.

" D = " 1956 " 1957 " Unfed.

Table 3

Weights of Ewes, Hoggs and Fleeces (lb.), 1961-62

Group	EWES				HOGGS			
	Weights			Fleece July 1962	Weights			Fleece June 1962
	Nov. 1961	Mar. 1962	Nov. 1962		Nov. 1961*	Mar. 1962	Nov. 1962	
<u>BIG HILL STRAINS</u>								
Lanark	99	103	99	4.1	77(14)	70	91	4.1
Newton Stewart	96	99	91	3.0	77(14)	72	92	3.3
Lewis	91	94	84	3.3	71(14)	62	87	3.7
Perth	91	94	84	3.3	71(14)	62	87	3.7
<u>INBREEDING EXPERIMENT<sup>+</sup></u>								
Foundation Ewes	106	109	98	4.3	-	-	-	-
Outcross Progeny	90	88	95	4.2	80(22)	76	87	4.2
Inbred Progeny	78	72	85	3.6	72(18)	60	75	3.3
<u>FEEDING EXPERIMENTS</u>								
<u>Finella (Protein Levels)</u>								
Group A = 17% Supp. Protein	108	105	105	5.0	-	-	-	-
" B = 7% " "	106	100	106	4.8	-	-	-	-
" C = 7% " "	115	106	105	4.4	-	-	-	-
" D = Unfed	117	99	101	3.9	-	-	-	-
<u>Finella Total</u>	110	103	105	4.6	80(41)	68	95	4.4
<u>Cairn (Mineral Dosing)</u>	104	105	106	5.0	82(29)	71	100	4.3
Flock Average (Excluding Inbred)	103	103	100	4.3	78(148)	69	92	4.1

\* Numbers in brackets.

+ The outcross and inbred progeny shown in the ewe weight column are gimmers.

Table 4

Weaning Weights (lb.) and Losses of Lambs, 1961-62

Hft	Weaning Weights				Wt. of Lamb Weaned Per Ewe Rearing <sup>1</sup>	Wt. of Lamb Weaned Per Ewe Mated*	Losses			
	Singles		Twins <sup>2</sup>				Birth to Marking	Marking to Weaning	Total	%
	No.	Wt.	No.	Wt.						
<u>BIG HILL STRAINS</u>										
Lanark	26	57.3	2	39.0	59	53	9	2	11	23
Newton Stewart	28	56.4	4	50.0	68	59	3	-	3	6
Lewis	24	50.1	10	46.2	69	56	3	-	3	6
Perth	24	55.2	8	51.0	57	49	11	1	12	25
<u>INBREEDING EXPERIMENT</u>										
From Related Sires	44	48.0	12	41.2	52	31	43	3	46	36
From Unrelated Sires	28	59.5	30	48.6	71	63	11	1	12	16
<u>FEEDING EXPERIMENT</u>										
<u>Finella (Protein Levels)</u>										
Group A - 17% Supp. Protein	25	65.0	14	59.0	80	59	8	-	8	16
" B - 7% " "	24	62.2	8	53.4	70	55	12	1	13	25
" C - 7% " "	11	63.0	12	54.0	76	72	5	-	5	7
" D - Unfed	7	63.0	8	54.4	79	43	11	-	11	41
<u>Finella Total</u>	67	64.4	42	55.4	76	57	36	1	37	23
<u>Cairn (Mineral Dosing)</u>	50	61.3	46	50.0	68	61	24	4	28	20
Flock Average (Excluding Inbred)	247	60.0	142	51.0	68	58	97	9	106	19

<sup>2</sup> Exclusive of twins reared as singles.

<sup>1</sup> No. of ewes rearing at marking.

\* Inclusive of twins reared as singles.

B. LEPHINMORETable 5Reconciliation in Numbers of Ewes. by Hirsels, 1961-62

	Ewes and Gimmers Nov. 1961	Cast Ewes	Deaths* Nov./Nov.	Gimmers brought in Nov. 1962	Ewes and Gimmers Nov. 1962
Barnacarry	193	37	9(3)	43	190
Low End	184	27	9(4)	47	194
Mid Hill	255	50	3(1)	65	267
Total	632	114	21	155	651

\* Inclusive of Black Loss, noted in brackets.

Table 6Lambing Percentages, 1961-62

	Ewes to Tup	Tup Eild	Ewes Dead Nov./April	Lambs Born		Lambs Marked			Lambs Weaned (%)
				Total <sup>♂</sup>	%	Total	%	% 1961	
Barnacarry	193	22	4*	175(13)	90.7	142	73.6	79.0	69.4(134)
Low End	184	23	4*	161(12)	87.5	140	76.1	75.8	71.2(131)
Mid Hill	254	28	1	243(20)	95.7	232	91.3	102.2	87.8(223)
Lanark Cross	88	8	1	82(3)	93.2	77	87.5	98.5	84.1(74)
N. Stewart Cross	73	10	-	67(4)	91.8	64	87.7	103.0	86.3(63)
Lewis Cross	33	4	-	35(1)	92.1	35	92.1	105.7	86.8(33)
Swaledale Cross	95	6	-	59(12)	107.3	56	101.8	103.1	96.4(53)
	631	73	9	579	91.8	514	81.5	87.0	77.3(488)

♂ Pairs of twins noted in brackets.

\* Includes one Black Loss.

Table 7

Weights of Ewes and Hogs and Fleeces (lb.), 1961-62

	Ewes				Hogs			
	Oct. 1961*	Apr. 1962	Oct. 1962*	Fleece	Oct. 1961	Apr. 1962	Oct. 1962	Fleece
Barnacarry	106.0	93.0	106.5	3.75	60.04	57.8	88.7	3.68
Low End	106.0	92.78	106.2	4.38	61.0	58.6	92.9	3.82
Mid Hill	102.0	90.97	99.8	3.64	54.9	58.0	89.5	3.41
Average	104.3	92.1	103.7	3.88	58.0	58.13	90.3	3.6

\* Excludes gimmers brought in.

Table 8

Weaning Weights (lb.) and Losses of Lambs, 1961-62

	Weaning Weights				Wt. of lamb weaned per ewe mated	Losses of Lambs				
	Singles		Twins			Birth to Marking	Marking to Weaning	Total	%	% 1961
	No.	Wt.	No.	Wt.						
Barnacarry	116	60.04	10	51.4	41.19	33*	8	41	23.4	20.9
Low End	85	63.4	10	52.8	44.09	21 <sup>+</sup>	9	30	18.6	18.3
Mid Hill	179	59.2	20	56.0	51.7	11 <sup>φ</sup>	9	20	8.2	10.1
Lanark Cross	63	58.7	2	53.2	49.6	5	3	8	9.7	7.8
N. Stewart Cross	54	59.3	4	50.2	50.5	3	1	4	6.0	8.4
Lewis Cross	31	60.2	2	56.7	52.1	-	2	2	6.5	13.9
Swaledale Cross	31	58.8	12	58.2	56.1	3	3	6	10.2	11.4
	380	60.4	40	53.7	46.24	65	26	91	15.7	15.6

\* Includes 9 born dead.

+ " 7 " "

φ " 4 " "

C. SOURHOPE

Table 9

Reconciliation of Ewe Numbers, 1961-62

Heft	Ewes and Gimmers Nov. 1961	Cast Ewes*	Deaths of Ewes and Gimmers Nov./Nov.	Gimmers brought in Nov. 1962	Hoggs Born 1962	Ewes and Gimmers Nov. 1962
<u>S.C. Cheviot</u>						
Fasset	143	25	8	39	43	149
Rigg	137	17 + 7	9	34	35	138
Gairs	132	22 + 2	10	28	35	126
Park Law	164	37	9	46	49	195*
Auchope	189	24	11	52	50	206
Hairney Law	124	19 + 2	7	28	27	124
Total	889	144 + 11	54	227	239	938
<u>N.C. Cheviot</u>						
Hairney Law	137	27	2	33	36	141
<u>Blackface</u>						
Schil	340 <sup>o</sup>	66	11	105	83	369
Flock Total	1366	237 + 11	67	365	358	1448

\* 11 ewes shown separately as cast on Rigg, Gairs and Hairney Law were transferred to, and are included in Park Law count for November 1962. 20 ewes were also purchased for Park Law.

<sup>o</sup> Excludes 35 regular age drafts (born 1955) which were retained in autumn 1961 for supplying ewes at monthly stages in pregnancy, to Rowett Institute.



Table 10

Lambing Percentages, 1961-62

Hoft	Ewes to Tup	Tup Eild and Abortions <sup>∅</sup>	Ewes Dead <sup>+</sup>	Lambs Born		Lambs Marked			Lambs Weaned (%)
				Total <sup>≠</sup>	%	Total	%	% 1961	
<u>S.C. Cheviot</u>									
<u>Southside</u>									
Fasset	143	9(3)	-	165(34)	115	137	96	99	91
Rigg	137	7(1)	3	149(23)	109	137	100	93	98
Gairs	132	12(2)	3	135(20)	102	115	87	91	83
	412	28(6)	6	449(77)	109	389	94	94	91
<u>Park Law</u>									
Free Grazing	79	8(3)	-	80(14)	101	70	89	95	84
Controlled Grazing	85	3(1)	1	101(20)	119	83	98	85	96
	164	11(4)	1	181(34)	110	153	93	90	90
<u>Auchope</u>									
Selection	91	4(3)	3	100(19)	110	83	91	93	87
Control	97	8(0)	3	108(22)	111	85	88	99	84
	188	12(3)	6	208(41)	111	168	89	96	85
<u>Hairney Law</u>									
S.C.C.	124	8(2)	3	139(27)*	112	108	87	90	79
TOTAL S.C.C.	888	59(15)	16	977(179)	110	818	92	93	88
<u>Hairney Law</u>									
N.C.C.	137	6(1)	-	174(43)*	127	152	110	119	107
<u>Blackface</u>									
<u>Schil</u>									
Banks and Brow	174	8(3)	-	201(40)	116	171	98	108	95
Alderhope	166	-(6)	-	213(54)	128	188	113	112	108
	340	8(9)	-	414(94)	121	359	106	110	102

∅ Abortions, separate count in brackets, are additions to tup-eild.  
 + Ewes dead from November to lambing time.  
 ≠ Pairs of twins in brackets and included in total.  
 \* Includes one set of triplets.

Table 11

Weights of Ewes, Hoggs and Fleeces (lb.), 1961-62

Heft	Ewes					Hoggs				
	Weights			Fleece July 1962	Deaths (%)	Weights			Fleece June 1962	Deaths (%)
	Nov. 1961	Apr. 1962	Nov. 1962			Nov. 1961	Apr. 1962	Nov. 1962		
<u>S.C. Cheviot</u>										
<u>Southside</u>										
Fasset	118	105	111	4.6	6	74(41)	58	96	4.4	5
Rigg	117	104	110	4.2	7	71(34)	58	98	4.8	-
Gairs	112	102	111	4.4	8	73(33)	60	100	5.0	15
Average	116	104	111	4.4	7	73(108)	58	98	4.7	6
<u>Park Law</u>										
Free Grazing	121	105	109	4.3	4	73(24)	59	95	4.3	4
Controlled Grazing	123	112	116	4.5	7	85(23)	64	106	4.8	-
Average	122	109	113	4.4	6	79(47)	62	101	4.5	2
<u>Auchope</u>										
Selection	111	102	102	3.8	7	72(28)	60	95	4.3	4
Control	110	103	103	4.2	5	70(25)	60	92	5.0	-
Average	110	103	102	4.0	6	71(53)	60	93	4.7	2
<u>Hairney Law</u>										
S.C. Cheviots	117	106	109	4.0	5	74(28)	62	97	5.0	-
S.C.C. Average	116	105	109	4.3	6	74(236)	60	97	4.7	4
<u>Hairney Law</u>										
N.C. Cheviot	134	122	125	3.8	2	79(35)	67	107	4.4	6
<u>Blackface</u>										
<u>Schil</u>										
Banks and Brow	114	107	106	3.9	4	72(53)	73	104	4.3	-
Alderhope	112	111	119	4.1	2	72(52)	75	106	4.5	-
Average	113	109	113	4.0	3	72(105)	74	105	4.4	-

Table 12

Weaning Weights (lb.) and Losses of Lambs, 1961-62

Heft	Weaning Weights				Wt. of lamb weaned per ewe mated	Wt. of lamb weaned per ewe rearing*	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	82	51	28	43	45	54	28	7	35	21
Rigg	93	54	36	45	50	58	12	3	15	10
Gairs	76	55	24	52	45	57	20	6	26	19
	251	53	88	46	47	56	60	16	76	17
<u>Park Law</u>										
Free Grazing	45	50	14	33	38	48	10	4	14	11
Controlled Grazing	49	52	26	39	47	57	18	1	19	19
	94	51	40	37	43	53	28	5	33	15
<u>Auchope</u>										
Selection	52	46	20	33	37	46	17	4	21	21
Control	54	47	16	36	37	48	23	4	27	25
	106	47	36	34	37	47	40	8	48	23
<u>Hairney Law</u>										
S.C. Cheviots	67	46	16	37	34	44	31	10	41	30
<u>S.C.C. Total</u>	518	51	180	41	42	52	159	39	198	20
<u>Hairney Law</u>										
N.C. Cheviot	73	63	60	50	61	72	22	6	28	16
<u>Blackface</u>										
<u>Schil</u>										
Banks and Brow	104	57	44	44	49	59	30	6	36	18
Alderhope	95	57	66	45	57	63	25	8	33	16
	199	57	110	45	53	61	55	14	69	17

\* Number of ewes rearing, taken at marking.