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HILL FARMING RESEARCH ORGANISATION

FARM REPORTS AND SUMMARY OF FLOCK RECORDS

1966

I FARM REPORTS - 1966

A. GLENSAUGH

Weather

November 1965 was very cold with temperatures 5°F below average. December and January continued to be cold and wet with very little sunshine. February brought snow and the worst weather of the winter. March was noted for a very mild spell for the first three weeks, with the weather deteriorating in the last 10 days to snow, sleet and cold wind. The cold continued throughout April, with temperatures rising very slowly. Temperatures continued to be below average in May and although it was fairly wet there were also long sunny periods. June, July, August and September all had average temperatures, with August a very wet month. Rain continued throughout October.

Weather Records, November 1965 - October 1966

Month	Rainfall (inches)	Sunshine (hours)	Mean daily air temp. °F.
<u>1965</u>			
November	3.39	53.6	36.6
December	4.70	26.3	33.2
<u>1966</u>			
January	3.07	23.5	34.2
February	4.63	42.4	35.8
March	*0.66	116.0	41.7
April	4.10	101.4	39.4
May	3.75	164.1	44.9
June	3.84	65.5	53.4
July	1.84	174.1	54.5
August	5.17	101.4	53.2
September	1.77	100.2	52.3
October	6.59	66.2	45.2
Total	44.51	1034.7	

* Snow blocked rain gauge and rainfall figure is probably low.

SHEEP - Hill flock

The rams were put out on the 12th November 1965 and immediately the weather broke with heavy rain and snow showers. This continued through most of the tupping period, with up to 20° of frost at times. Some drifting occurred and by 4th December we had a cover of 4 - 5 inches. All ewes were fed hay while inbye for mating, and some 8 - 10 tons were consumed at a time when normally only a few bales would have been needed.

The bad weather continued off and on all winter and the feeding of all ewes inbye had to be continued into May. It is estimated that an additional 12/6d per ewe was required in addition to the original estimate, and even then many of the ewes had far too little milk at lambing time, when we experienced some of the worst weather of the winter, particularly during Easter weekend. While not carrying out a full recording of lamb births and deaths it is estimated that we lost approximately 60 lambs over this period. In addition to these losses the death rate between birth and marking would have been 5 - 10% higher than in a normal year. Full individual performance was not recorded this year on all the hills but the figures in the table at the end of the report give some indication of the results, which were not so good as in the previous year.

Fleece weights were not recorded this year except where specially requested by the scientific staff but one interesting point emerged when weighing hogg fleeces in the course of experimental work. Hoggs which had been well fed in both winter and summer had an average fleece weight 1 lb greater than those which had been poorly fed in winter and then well fed in summer.

Weaning weights of lambs were recorded, but differential treatments in connection with experimental work make it unrealistic to quote an average for the farm. There was, however, an increase in the number of small lambs and this was almost certainly due to the fact that many of the ewes had little milk in the spring. A total of 571 lambs were weaned from the hill flocks.

Inbye flock

The inbye flock numbered 196 at tupping and included about 40 7-year-old ewes which were a year older than normal. Their feeding was expensive due to the length and severity of the winter. As with the hill ewes, bad weather occurred at the height of lambing. On the 26th, 27th and 28th March there was continual sleet, snow, and wind, and about 40 lambs were lost. At the end of the inbye lambing the Easter weekend previously mentioned caused more losses. As a result of this the marking percentage was very low at 103%.

The addition of 89 lambs from ewes involved in experimental work gave a total of 276 lambs from the inbye flock and experimental ewes.

Disposal of Lambs

As in 1965 the hill lambs and the inbye lambs were kept together after weaning and, apart from those to be sold as stores, all were put on rape. With wet weather in October, these lambs did not do well over that period and a few of the smaller ones died. Since then they have been getting bruised oats as a supplement and they are now doing well, three lots having been sold fat since November.

Ewe lambs retained as stock replacements	199
Lambs sold store	156
Lambs sold fat	242
Lambs on hand (31/12/66)	224
Deaths	26

Total weaned	<u>847</u>

The 156 stores averaged 86/-, with a top of 111/6 for crosses and a bottom of 62/6 for the smaller Blackfaces. Most of the fat lambs were sold on a dead-weight basis, and these have so far averaged 92/-.

Ewes for 1967

At the date of this report tupping has finished and all ewes have been returned to the hill. The weather over the period has been mixed, with some very wintry days, but no storm feeding was required this year. Tupping began 1 week later than usual. The cast ewes for the inbye flock were taken off the hill 6 weeks earlier than usual in an attempt to get them into better condition by tupping. In the past the age group to be cast was not in good enough order to make twinning very likely. With about 100 ewes inbye the total number put to the ram was 880.

CATTLE

At the beginning of the year the breeding herd numbered 85, and included 13 heifers calving for the first time. During the year, one 9-year-old died of "staggers", one broke a leg and had to be sold, and five were cast and sold in the spring of 1966. These five were examined by the Vet. and found to be cild, and in most cases had a bad performance record in one respect or another. Two cows with calves at foot were purchased in April 1966.

All calves were born between January and April, and 74 homebred calves,

one purchased foster calf, and the two purchased with their mothers were presented for Calf Subsidy. This was a total of 77 in all, an increase of nine over the previous year.

Summary of Calf Births and Deaths

Calves born dead	Calves born alive	Calves died after birth	Calves bought	Calves reared
1	76	2 (1 killed by dam 1 hurt back and sold casualty)	3	77

The following table shows the calving figures over the last 6 years.

Year	Cows mated	Dead calves	Died after birth	Homebred calves reared	% calves weaned
1961	83	10	8	59	71
1962	87	11	10	63	72
1963	78	9	4	61	78
1964	91	7	12	66	72.5
1965	78	2	2	66	84.6
1966	85	1	2	74	87

The 1965 improvement has been maintained and the system of providing some rough shelter for the calves up to the age of 1 week was continued.

The following tables show cow weights, calf weights, stirk weights, sales etc.

Live-weight of Cows - November 1966

Breed	No.	Average weight (lb)
Galloway	8	1158
Shorthorn/Gall.	12	1104
SH./Highland	7	1104
AA./Crosses	31	1117
Hereford Cross	10	1093
Shorthorn Cross	3	1131
Overall average		1115

This table does not include weights of 8 cows sold in November 1966 as cast.

Weaning Weight of Homebred Calves 1/10/66

Sire of Calves	Male		Female	
	No.	Av. weight (lb)	No.	Av. weight (lb)
Hereford	12	517	20	445
Aberdeen/Angus	21	443	21	433

All the 1965 calves not sold in the autumn of 1965 were sold in the following lots during 1966.

March Sale (12/3/66)

No. and Sex	Av. pre-sale wt. (lb)	Av. price
9 Bullocks	716	£63
7 Heifers	688	£56/10/-

April Sale (23/4/66)

No. and Sex	Av. pre-sale wt. (lb)	Av. price
8 Bullocks	728	£64/5/-
3 Heifers	700	£59/5/-

July Sale (21/7/66)

No. and Sex	Av. pre-sale wt. (lb)	Av. price
5 Bullocks	789	£70
5 Heifers	747	£64/10/-

October Sale (1/10/66)

No. and Sex	Av. pre-sale wt. (lb)	Av. price
3 Bullocks	821	£58
6 Heifers	784	£56/10/-

One heifer was sold fat for £71/10/-, including subsidy, and three smaller heifers were sent to the F.M.C. in December but so far no returns have been received.

It became obvious this year that if the calf sales were to follow the pattern of the lamb sales, only well-grown calves would be easy to sell. Twenty-five calves were selected early in August and creep fed. Fourteen of these were sold in Edzell on 29/10/66 and a further 10 were retained until 21/12/66 in the hope that the trade would improve and that they would attain a more saleable weight.

Edzell Sale 29/10/66

No. and Sex	Av. pre-sale wt. (lb)	Price
2 Bullock calves	644	£46/10/-
4 Bullock calves	610	£44/5/-
1 Bullock calf (plain)	588	£37/15/-
4 Heifer calves	565	£34/5/-
3 Heifer calves	595	£35/-/-

Laurencekirk Sale 21/12/66

No. and Sex	Av. pre-sale wt. (lb)	Price
5 Bullock calves	630	£46/-/-
5 Heifer calves	560	£41/15/-

Fifty-three calves are being wintered and will be sold in the spring and early summer of 1967.

A change in the cattle policy at Sourhope enabled us to transfer 32 cows to Glensaugh. This number, together with seven in-calf heifers, (two bought in Edzell and five of the Luing breed) gave a cow stock of 118 in October, 1966. Originally six of the Luing breed were purchased but one proved to be a non-breeder. This animal has been sold fat and a claim submitted to Messrs. Cadzow.

The fairly simple system of cow performance recording, based on calf weaning weights, has been continued and as a result of this eight cows have been sold in November 1966 and a further two may be sold later. Should this intention be carried out we should start the 1967 calving season with 108 cows and in-calf heifers. This is an increase of 23 over the previous year. Calving is due to commence about the 29th December 1966.

Cropping 1966

<u>Roots and Green Crop</u>		<u>Grass</u>	
Potatoes	2.2 acres	Hay	42 acres (ac. poor)
Turnips	14.0 acres	Silage	57 acres
Kale	7.0 acres	Grazing	160 acres
Rape	53.0 acres		
	<u>76.2 acres</u>		<u>259 acres</u>

It will be seen that no oat crop was grown in 1966. It had been found in previous years that the yield was such that it hardly justified the work and risk of a cereal crop. In addition to this our equipment for dealing with a grain crop was in poor condition and spares for both the seeder and the binder were almost impossible to obtain and often had to be hand-made locally. One other point was the fact that we were always into October before the crop was secured and the shortening day plus broken weather were against us. The weather this year makes it doubtful if we would have been finished yet. Rape and Italian ryegrass were grown in place of the oat crop and more of our own lambs were fattened.

In this district barley straw is always available fairly cheaply and approx. 110 tons were purchased, some by the acre and some by the ton, for a net cost of about £200.

Roots and Green Crop

The turnips were a good crop. Kale for the hogs is again good after initial competition with annual weeds. The sowing of the rape was staggered to allow a longer grazing period in the autumn and the later sown rape (July) was a far better crop than the earlier fields. One other advantage of the rape was that the lambs were not on autumn grass and this left more for the ewes at tugging time.

Hay and Silage

The hay season was again difficult and more grass was conserved as silage than was originally intended. It is estimated that some 45-50 tons of hay and approx. 300 tons of silage were secured.

Heather Burning

Due to very dry conditions with high winds at the normal burning time only about 20 acres of heather were burned this year. Some burning of heather round our marches was carried out by the Forestry Commission and this should make it safer for future years as the danger of burning trees over the march is always a deterrent on many otherwise suitable burning days.

Fencing

Some 500 yards of new fencing were erected to replace old fences which were beyond repair. A further 1500 yards of high tensile wire fencing were erected at a cost of 2/7d per yard including labour and it appears to be highly satisfactory. This comprised a march fence with Fettercairn Estate, on which 50% of the cost was recovered, and a new fence further subdividing Finella Hill. Approx. 25 new gates were hung throughout the farm.

Other Items

Two small shelter belts were established. Some repairs to buildings were carried out following damage by gale-force winds.

B. LEPHINMORE

Weather

November was dull, dry and mild with cold east winds and a little snow during the second half of the month. This weather lasted into December. Milder weather prevailed after the first week and continued up to Christmas, the last week of the year being dry. January on the whole was a good month, but the first week of February was wet and was followed by a very cold spell. The last week was mild with rain at times. March was mild and wet up to the middle of the month; the last half was cold with snow showers. April was cold with east winds bringing snow at times and the spring was the worst for a number of years. Except for the second and third weeks, when wet cold weather was experienced, May was warm and sunny. June was mainly wet with good growth in hill and lowground pastures. July and August were warm and sunny, giving the best summer since 1955. The first half of September was mixed weather - wet with sunny intervals. The latter half was mainly dull and dry with haze and hill fog. October was a good month with little frost and below-average rainfall.

Weather Records, November 1965 - October 1966

Month	Rainfall (inches)	Sunshine (hours)	Mean daily air temp. °F.
<u>1965</u>			
November	3.54	63.9	39.3
December	8.66	38.6	*-
<u>1966</u>			
January	4.45	32.7	*-
February	4.97	24.7	39.3
March	7.08	62.7	43.5
April	3.23	116.3	42.7
May	4.76	170.3	49.8
June	6.58	82.4	56.9
July	2.31	151.9	56.6
August	1.65	154.7	56.5
September	6.79	58.7	55.0
October	5.04	65.9	48.0
Total	59.06	1022.8	

A total rainfall of 71.1 inches was recorded at the rain gauge sited on the Midhill 800 ft. above sea level.

* Max. thermometer broken during part of these two months.

SHEEP

All sheep were in good condition in October 1965, especially on Barnacarry.

At the January fluke-dosing Barnacarry hirsell was divided and 90 ewes housed from the 31st January.

Sheep were in satisfactory condition at the commencement of the lambing season but lack of grass combined with cold, wet weather was detrimental to stock.

The remaining ewes on Barnacarry hill were all lambed in the 'croft' area of the hirsell, ewes and lambs being allowed to draw out to the hill when lambs were 7 - 10 days old.

At weaning Midhill lambs were best followed by Barnacarry and then Low-End. The overall percentage weaned was 78. Figures for previous years were:

1965	82%
1964	83%
1963	69%

Very poor prices prevailed for store sheep during the autumn and only 96 small shott lambs were sold store. An average price of 33/9 was realised.

A total of 216 lambs were fattened off grass and sold through the F.M.C., realising an average price of 68/5 per head, the average carcase weight being 26.6 lb.

Some 35 lambs are still on hand, the best of which are housed and will be sold fat early in the New Year.

Ewe hoggs were again wintered at Point farm, Tighnabruaich, apart from Barnacarry hoggs which were wintered on the hill. During 1966 - 67 Barnacarry hoggs will be housed from the end of January. Some 110 hoggs are being wintered away at Point farm and 35 (mainly Low-End) are being wintered at home in the fields.

Fat Lamb Prices

Year	No.	Carcase weight (lb)	Price per head
1960	85	27.5	78/6
1961	133	28	90/-
1962	94	27.5	81/3
1963	127	27.75	85/9
1964	111	27.75	83/3
1965	188	24.5	67/-
1966	216	26.6	68/5

Draft Ewe Prices

Year	No.	Price per head
1960	56	60/-
1961	59	51/-
1962	43	62/-
1963	75	64/-
1964	45	73/-
1965	54	73/6
1966	53	47/-

Average Lamb Prices

Year	Wether lambs		Ewe lambs	
	No.	Price	No.	Price
1960	235	65/-	99	43/-
1961	235	79/-	90	42/6
1962	217	82/6	73	63/-
1963	147	82/6	63	55/6
1964	238	80/-	83	67/6
1965	241	66/9	37	68/-
1966	253	60/3	59	43/-

Supplementary feeding

Midhill and Low-End hirsels were fed with concentrates prior to lambing.

Feeding commenced on the 1st March and continued to the 21st April. A total of 31 cwt was fed to the Midhill and 23 cwt to the Low-End. Ewes were fed three times a week and the feeding rate was $\frac{1}{3}$ lb/head/day. A total of 14 lb was fed at a cost of 4/8 per head (excluding haulage and labour costs).

In-wintering of Barnacarry ewes 1966

90 ewes (half the total) from Barnacarry were housed within the covered area of the fank from the 31st January 1966. The ewes were lambed inside and returned to the hill during May.

Feeding was as follows:

Month	Barn-dried hay lb/head/day	*Concentrates lb/head/day
February	1 $\frac{1}{2}$	nil
March	2	$\frac{1}{3}$ lb from the 11th
April	2	$\frac{1}{2}$ lb from the 9th

* (90% bruised oats, 10% fish meal + minerals)

Approx. 1 $\frac{1}{2}$ cwt hay/head was consumed (@ £14/ton)	21/-
" 18 lb con./ " " " (@ 3d/lb)	4/6
Total feed cost/ewe	<u>25/6</u>

It became apparent when lambing commenced that ewes were not thriving. At first it was assumed that they may have been carrying a heavy fluke burden, but faecal analysis showed a heavy worm infestation. All ewes were subsequently dosed and a marked improvement was observed. It is worth noting that ewes that remained on the hill did not have a similar worm burden. In 1967 when all ewes on Barnacarry are housed all sheep will be dosed for fluke and worms prior to entering the shed.

CATTLE

Feeding of the hill cows commenced on 17th November 1965, and ceased on the 29th May 1966. On the 10th December the herd was divided on an age and weight basis. Sixteen cows were wintered on Barnacarry hill and fed hill cow nuts (apart from some hay which was given during adverse weather). The general rate of feeding was 5 lb nuts/head/day. The other 17 cows were fed hay only (generally 15 - 16 lb/head/day) and wintered on the Downfall and Phase 2. The two groups remained apart until the beginning of April when both lots were run together with the bull.

During the whole feeding period (Nov. - May) the Barnacarry wintered cows consumed 6 cwt nuts and 6 cwt hay/head. The other group ate 20 $\frac{1}{2}$ cwt hay and 1 $\frac{3}{8}$ cwt nuts per head. Valuing hay at £14 per ton gives total feeding costs of £15 and £16/10/- per head respectively.

Apart from two late births in May calves came steadily from January to March: no losses were experienced. 35 calves were weaned on 30th August. From 20th September, 18 were supplementary fed until the first sale on 15th October. No advantage was gained. Over the two calf sales (15th October and 12th November) bullock calves averaged £26 and heifers £24/6/- per head.

Mid-October weights of the AA X SXH calves for 1965 and 1966 are as follows:

Calves	1965		1966	
	No.	Weight	No.	Weight
Heifers	13	197 kg (433 lb)	16	187 kg (411 lb)
Bullocks	17	212 kg (466 lb)	19	201 kg (444 lb)
Hill Cows	In-calf	Deaths	Sales	Hill Cows
Nov. 1965	Heifers			Nov. 1966
33	3	-	-	36

The A.A. bull died during May 1965 after an accident.

ARABLE GROUND

A total of 42 tons of hay was secured from 3 fields of 22 acres total. Approx. 33 tons were barn-dried and 9 tons were field-cured. Drying costs (electricity only) averaged 18/- per ton.

Field 5 was reseeded in August with a mixture of:-

4 lb	Cert. Italian ryegrass
5 "	" S 24 Perennial ryegrass
5 "	Danish Hunsballe
3 "	S 37 Cocksfoot
3 "	S 143 "
4 "	S 48 Timothy
2 "	N.Z. Mother-certified white clover
<u>26</u>	lb/acre

Hill Improvement

During the summer 40 tons of ground limestone and $10\frac{1}{2}$ tons of basic slag (14% P₂O₅) were applied to approx. 20 acres of unimproved areas in the Downfall and Currie's Paddock.

Fencing material to divide Midhill awaits suitable weather for transport out.

Adverse weather prevented the commencement of another scheme of improvement on the Low-End. However, it is hoped during the coming spring to lime and slag about 30 acres of this hirsell.

Buildings

A shed 96 ft by 34 ft has been erected parallel to the existing fank, between the fank and the burn. The shed will be used to house the entire Barnacarry hirsell from the end of January 1967. Metal pens will be erected to keep ewes in groups of 25 - 30.

Heather Burning

No heather burning was carried out during the spring of 1966.

C. SOURHOPE

Weather

November proved to be the coldest in Scotland since 1925. It opened with gales and frequent wintry showers which gave way to heavy snowfalls with considerable drifting. Nor was there much improvement towards the end of the year, temperatures persisting below the seasonal average. Thereafter cold periods accompanied by snow alternated with milder days. March was unusually mild (mean daily air temperature 41°F). April was the coldest in Scotland for over 40 years, with a return to cold easterly winds, below-average temperatures, and with snow lying over the first 10 days of lambing.

The weather thereafter remained almost continually unsettled and wet, apart from a few dry days at the beginning of June and a period of 6 consecutive dry days in July. Growth of grass throughout the summer was abundant. The autumn was wet and cold.

Weather Records, November 1965 - October 1966

Month	Rainfall (inches)	Sunshine (hours)	Mean daily air temp. °F.
<u>1965</u>			
November	7.05	56.5	35.5
December	2.03	39.8	34.9
<u>1966</u>			
January	3.41	23.4	34.5
February	3.99	36.4	35.6
March	0.54	104.3	41.0
April	1.84	84.0	38.8
May	1.56	193.1	48.9
June	3.96	114.6	55.5
July	2.72	169.9	54.6
August	6.46	109.0	53.4
September	1.95	104.0	54.1
October	5.35	71.5	46.7
Total	40.86	1106.5	

SHEEP

The sheep stock, in fairly satisfactory condition prior to tugging 1965 were faced with rigorous conditions even before the tups went out and recourse had to be made to storm-feeding at an early date (by 22nd November all hill ewes were receiving some hay). The opportunity was taken to shed off and bring inbye all stock ewe hoggs so that they could be 'trained' to eat concentrates and hay. Intervals of storm-feeding continued throughout the winter and as lambing approached hay-feeding became more regular. Concentrates were fed to all sheep from the middle of March and feeding had to be continued until the beginning of May. By the close of the "winter" feeding the hill sheep stock had consumed on average 40 lb hay and 22 lb concentrates at a cost per ewe (hay at £12/ton) of 10/9.

Overall weaning percentages for the South-country Cheviot, North-country Cheviot and Blackface ewes were 74, 85 and 86 respectively. Some comment is necessary on the individual figures for three hefts.

Two-thirds of the North-country Cheviot ewe stock on the Near-end Hairney Law, which weaned only 69% of lambs, comprised ewes bought in September 1965 as 5-year-old 3-crop from Lairg. As lambing approached some 35 of these purchased ewes aborted, fetuses sent for examination failing to reveal any signs of Vibrio foetus or enzootic abortion. It was concluded that the

abortions were almost certainly a consequence of tick-borne fever in the ewes. Almost all these ewes are being carried on as 6-year-olds.

The most disappointing feature of lambing was the performance of both Rigg and Gairs hefts. Both ewe stocks when handled appeared most satisfactory 1 month before lambing, and were not dosed, apart from a few leaner sheep which received phenothiazine. All sheep were given an oral cobalt dose at that time. Concentrate feeding was begun to augment hay which the sheep were already receiving. In an attempt to cut down on labour requirements at lambing all the Rigg ewes were transferred to the Gairs heft as lambing started. Initially all was reported as going well at lambing but about mid-way through the ewes appeared to rapidly lose condition. At the first opportunity after lambing both hefts were dosed with P.T.Z. and from then on the ewe stock began to improve. To what extent the disappointing lamb crop from these two hefts was attributable to the absence of worm-dosing prior to lambing, to the concentration of the Rigg onto the Gairs for lambing, both aggravated by the serious deterioration which occurred in the weather, or to other factors must remain problematical.

As in the previous year the number of twin births was low on all hefts except experimental ones. The overall average weaning weights of the Blackface and North-country Cheviot lambs were down by 2 and 1 kg respectively compared with 1965 whilst South-country Cheviot lambs were almost 1 kg heavier.

The ewe stock prior to tugging this autumn (1966) was in satisfactory condition in spite of the very wet autumn weather. Throughout tugging the weather has been favourable so that ewes have maintained their condition much better than in 1965. The South-country Cheviot ewes on Auchope have been tugged with the North-country Cheviot, it being the intention to change the ewe stock to North-country by top crossing.

The outbreak of Foot and Mouth disease in Northumberland in July resulted in the farm remaining under a Movement Restriction Order for 7 weeks with a disruption of store lamb sales. As soon as the Order was lifted a total of 432 lambs were sold privately on a live-weight basis to average 86/3 per head. Then account is taken of small lambs sold later through the store market, and 50 top lambs graded, then:-

313 South-country Cheviot lambs averaged	78/8
108 North-country Cheviot lambs averaged	80/-
172 Blackface lambs averaged	78/2

In addition to the 368 ewe hogs retained for breeding, 34 North-country Cheviot wether hogs have been added to the wether flock and 89 small ewe lambs are being wintered on the inbye ground.

Wether Stock at November 1966

Breed \ Year of Birth	1961	1962	1963	1964	1965	1966
S.C.C.	2 (fistulus)			6		
N.C.C.					34	34
B.F.			10	9	32	
Romney x B.F.					12	

Average draft ewe prices were:-

South-country Cheviot 6-year-old	64/-
North-country Cheviot 6-year-old	72/-
Blackface 6-year-old	67/6

A total of 43 East Cheviot ewes were sold fat to average 65/-.

CATTLE

Winter feeding of the cows began as early as November 15th and was continued until 9th May, the cows being fed on average 8 cwt hay, 51 cwt silage and 132 lb hill cow nuts per head. Of the 60 in-calf cows and heifers at November 1965, 1 cow and 2 heifers aborted (the latter being subsequently slaughtered on veterinary advice), 3 cows proved cild, and 1 cow 'foundered' in mid-winter and was sent for slaughter. Of the 53 calves born one hung itself on a fence and another was found dead with severe bruising near a fallen dyke. The calves by weaning time lacked both the weight and the condition of previous years. The 20 heaviest steer calves (average weight 496 lb) were sold privately on a live-weight basis to average £35/19/-, the remaining 31 calves are being wintered on the farm.

All cows were mated to an Aberdeen Angus bull and, in October 1966, 32 in-calf Blue-grey cows and heifers were transferred to Glensaugh.

In November 1966 cattle numbers were:-

Cows and in-calf heifers	24
Bulling heifers	5
Calves being wintered	31
Bulls	1

Cropping

A total of 19½ acres of grass was cut for hay; 11 of these were won in first class condition. A further 14½ acres were conserved as silage. Twelve acres of Ymer barley undersown with a permanent grass seed mixture were combined to yield 32 cwt grain/acre, some 10 tons of which have been wet-stored in polythene bags. In addition, 700 bales of barley straw were cut. The 'take' of seeds under the barley crop looks promising, and a direct reseed of the Mac Haugh field (3 acres), using 10 lb Westernwold ryegrass as a nurse crop has produced an excellent sward.

Roads

Further work on the new road was stopped when the Foot and Mouth Outbreak brought outside contract work to a standstill and completion has now been held over until May 1967. Meanwhile maintenance work is being put in hand using farm staff.

Buildings

A new building to house experimental animals, and to provide ancillary laboratory and feed storage facilities, is in course of construction. A foot-bath has been built at the sheep yards, and further exterior paint-work has been completed.

II SUMMARY OF FLOCK RECORDS FOR 1965-66

A. GLENSAUGH

Table 1

Reconciliation of Ewe Numbers 1965-66

	Ewes and gimmers at Nov. 1965	Cast ewes	Deaths	Gimmers brought in Nov. 1966.	Ewes and gimmers at Nov. 1966
<u>CAIRN</u>	44	Removed end of Nov. 1965. See Lewis entry Big Hill		47	47
<u>PINELLA</u>	155	32	5	172	290
<u>BIG HILL</u> (Main flock)	370*	68	17	71	356
(Lewis)	44	11	3	14	44
<u>LOCH HILLS</u> (Forestry Park)	40	2	2	10	46
Flock Total	609	113	27	314	783

* Includes 11 Inbred controls added back after mating

Table 2

Lambing Percentages 1965-66

	Ewes to tup Nov. 1965	Tup eild and abort- ions	Ewes dead Nov. - May	Lambs marked			% Weaned
				Total	%	% 1965	
<u>PINELLA</u>	155	20	3	143	92.3	111.4	89.0
<u>BIG HILL</u> (includes Lewis)	414	47	15	391	94.5	98.7	91.1
<u>LOCH HILLS</u> (Forestry Park)	40	3	1	57	142.5	145.0	140.0
Flock Total	609	70	19	591	97.0	105.8	93.8

GLENSAUGH

Table 3

Weights of Ewes & Gimmers (kg)

1965-66

	<u>Ewes</u>		<u>Gimmers</u>	
	<u>Nov. 1965</u>	<u>Nov. 1966</u>	<u>Nov. 1965</u>	<u>Nov. 1966</u>
<u>CAIRN</u>	43.7	Ewe Stock sold	-	43.5
<u>FINELLA</u>				
(a) West Finella	-	-	-	52.2
(b) Mid Finella	52.6	57.6	-	-
(c) East Finella	-	-	-	51.2
<u>BIG HILL</u>				
(a) Main Flock	49.9	49.7	43.5	41.1*
(b) Lewis	Not available	41.6	Not available	39.1
<u>LOCH HILLS</u> (Forestry Park)				
Blackface	60.2	67.9	-	56.2
Cheviot	66.7	74.6	-	-

* Best hogs withdrawn for experimental purposes

B. LEPHINMORE

Table 1

Reconciliation of Ewe Numbers 1965-66

	Ewes and gimmers Nov. 1965	Ewes		*Deaths Nov./Nov.	Gimmers brought in Nov. 1966	Ewes and gimmers Nov. 1966
		Draft	Cast			
Barnacarry	186	3	8	7 (1)	36	204
Low-End	189	28	4	13 (2)	47	191
Midhill	325	40	2	22 (3)	97	358
Total	700	71	14	42 (6)	180	753

* Inclusive of Black Loss noted in brackets

Table 2

Lambing percentages 1965-66

	Ewes to Tup	Tup eild & abort- ions	Ewes dead Nov/April	Lambs born	Lambs marked			Lambs weaned	
					Total	%	% 1965	Total	%
Barnacarry	186	20	2	173(9)	152	81	77	142	76
Low-End	189	23	3	- (19)	147	78	87	140	74
Midhill	325	45	12	- (30)	267	82	93	263	81
Totals	700	86	17	- (58)	566	81	87	545	78

Pairs of twins noted in brackets under total lambs born

NOTE: Figures under tup eild and abortions only approximate for Low-End and Midhill.

Table 3

Weights of Ewes and Hogs (kg) 1965-66

	Ewes *		Hogs		
	Nov. 1965	Nov. 1966	Oct. 1965	Apr. 1966	Nov. 1966
Barnacarry	46.1	46.5	25.9	23.1	38.0
Low End	45.6	46.5	28.2	28.6	38.3
Midhill	43.5	44.8	27.3	28.8	36.8
Average	44.8	46.5	27.2	27.8	37.4

* Excluding gimmers

C. SOURHOPE

Table 1

Reconciliation of Ewe Numbers 1965-66

	Ewes & gimmers Nov. '65	Cast ewes	Deaths ewes & gimmers	Gimmers brought in	Hoggs born '66	Ewes & gimmers Nov. '66
<u>S.C. Cheviot</u>						
Fasset	60	3	3	20	24	74
Rigg	145	22	11	40	39	152
Gairs	144	25	8	41	32	151*
Park Law	111	22	6	22	25	106*
Auchope	219	36	17	47+	46	213
Hairney L.Par	34	9	0	0	0	25
Total	713	117	45	170	166	721
<u>N.C. Cheviot</u>						
Fasset	62	0	2	21	25	81
Park Law	110	22	2	24	25	110
Hairney L.Nr.	153	21	13	38	30	157
Total	325	43	17	83	80	348
<u>Blackface</u>						
Banks & Brow	179	30	8	44	49	185
Alderhope	175	27	10	45	47	183
Fasset	42	0	2	22	26	62
Total	396	57	20	111	122	430
Flock Total	1434	217	82	364	368	1499

* 1 Ewe transferred from Gairs to Park Law

+ Includes 1 gimmer not shown in 1965 report as a hogg

SOURHOPE

Table 2

Lambing Percentages 1965-66

	Ewes to Tup	Tup cild & abortions	Ewes died	Lambs born		Lambs marked			Lambs we ned	
				Total+	%	Total	%	1965 %	Total	%
<u>S.C.Cheviot</u>										
Fasset	60	5	1	64 (11)	106.7	55	92	90	50	83
Rigg	145					107	74	83	101	70
Gairs	144					102	71	81	91	63
Park Law	111	11	1	103 (5)	92.8	95	36	85	92	83
Auchope	219					176	80	88	167	76
Hairney L.F.	34					31	91	63	26	77
Total	713					566	79	84	527	74
<u>N.C. Cheviot</u>										
Hairney L.N.	153					111	73	97	105	69
Fasset	62	7	2	60 (9)	96.8	54	87	-	53	86
Park Law	110	4	2	129 (26)	117.3	118	107	-	117	106
Total	325					283	87	93	275	85
<u>Blackface</u>										
Banks & Brow	179					149	83	92	145	81
Alderhope	175					148	85	98	144	82
Fasset	42	1	1	59 (19)	140.5	53	126	77	53	126
Total	396					350	88	94	342	86
Grand Total	1434					1199	84	88	1144	80

+ Pairs of twins in brackets but included in total

8 S.C.C., 14 N.C.C., 18 B.F. lambs sent to Grassland Research Institute, Hurley, shortly after lambing, from Fasset heft, have been included in the above table.

SOURHOPETable 3Weights of Ewes and Hogs (kg) 1965-66

	Ewes			Hogs			
	Nov. '65	Nov. '66	Deaths %	Nov. '65	April '66	Nov. '66	Deaths %
<u>S.C. Cheviot</u>							
Fasset	49.4	54.1	5.0	31.9	28.1	46.1	4.8
Rigg	48.1	47.0	7.6	30.2	25.3	42.8	0
Gairs	48.1	48.9	5.6	28.4	24.1	42.5	2.4
Park Law	51.7	52.8	5.4	30.6	26.4	45.5	8.3
Auchope	48.1	46.7	7.8	30.5	26.6	42.9	0
Hairney L.Far	54.4	56.3	0				
Average	49.0	49.2	6.3	30.1	25.9	43.5	2.3
<u>N.C. Cheviot</u>							
Fasset	53.5	58.2	3.2	33.5	31.2	50.5	4.5
Park Law	57.1	56.7	1.8	36.1	33.0	53.0	4.0
Hairney L.Nr.	57.6	56.6	8.5	35.2	28.5	50.1	2.6
Average	56.7	57.0	5.2	35.0	30.6	51.1	3.5
<u>Blackface</u>							
Banks & Brow	51.2	49.4	4.5	33.5	26.7	45.0	4.3
Alderhope	48.1	48.2	5.7	33.3	26.7	45.6	2.2
Fasset	54.4	56.0	4.8	35.4	32.7	51.3	0
Average	50.3	49.9	5.1	33.8	27.8	46.5	2.6