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Lambes - Cost of production
O.S.

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THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

THE EWE FLOCK ON THE DAIRY FARM

A MANAGEMENT SURVEY IN SOUTH-WEST SCOTLAND

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ECONOMICS DEPARTMENT REPORT No. 84
OCTOBER, 1962.

TABLE OF CONTENTS

| | <u>Page No.</u> |
|-------------------------------|-----------------|
| FOREWORD | (i) |
| INTRODUCTION | 1 |
| SOME MANAGEMENT ASPECTS | 3 |
| PROFITABILITY | 5 |
| ALTERNATIVES TO THE EWE FLOCK | 8 |
| SUMMARY AND DISCUSSION | 11 |
| APPENDIX | 12 |

FOREWORD

Since the end of the last war ewe numbers in the United Kingdom have been on the increase. This trend is reflected in the rising level of mutton and lamb production in the country over the post-war period. Imports of mutton and lamb have also been high in some recent years. These forces have together resulted in an expansion in the supplies of mutton and lamb available for consumption in the United Kingdom, and have been contributory factors in causing low market prices and high Exchequer liability in the form of Deficiency Payments. The reduction in the guaranteed price for fat sheep of ld. per lb. applied at the 1962 Price Review and the more stringent weight conditions then attached to the guarantee, arise out of this situation.

The upward trend in sheep production over the United Kingdom as a whole applies also in Scotland, where the national ewe flock had, by 1961, reached a record total of 3,604,500 ewes. Sheep in Scotland are maintained under a variety of natural conditions and systems of management. This report examines one small sector of the sheep industry - the commercial ewe flock on the dairy farm.

The aim of the report is to determine how the ewes are managed, to measure the contribution which they make to farm profit and to show how they can be compared with competing enterprises on a profit basis.

The background material was derived from a survey carried out among some dairy farmers in Ayrshire and Lanarkshire during the 1961 lamb crop year. The co-operating farmers were not asked to keep formal records and some of the information presented herein is based on memory or estimation by the owners of the flocks. It is, however, considered to be sufficiently accurate for the purposes in mind.

The author's thanks are due to these farmers for their patient and willing assistance.

INTRODUCTION

The survey covered 16 farms over the period of the 1961 lamb crop year.

The spring came early in 1961 and there followed a dry, sunny, early summer. From mid-summer onwards the weather was wet and rather cold, so the lambs may have been marketed somewhat later than usual.

What size were the farms and what were their main physical features?

The range in farm acreage, after adjusting to take account of rough grazing,⁽¹⁾ was from 67 to 288 acres. Most of the farms lay in the 100-200 acres range.

The predominant soil type was a light to medium loam, but a few of the farms were on medium or heavy clay.

In terms of height above sea-level the highest lying farm was at an altitude of 950 feet and the lowest at 150 feet.

Why were ewes kept?

Apart from the basic profit motive, there were other reasons why ewes were kept.

In the majority of cases the ewe flock had been introduced on to the farm within the past 10 years. This move was often associated with shortage of dairy stock accommodation. That is, farms which were capable of carrying more dairy cows from a feed point of view, were stocked up with ewes instead, because of lack of dairy housing. In such cases the ewe flock was one alternative way of utilising spare resources.

It is commonly believed that sheep on lowground farms are useful in helping to control ragwort. In some instances the ewe flock had been introduced for this purpose, and satisfactory results had followed.

In one case sheep had proved to be an effective bloat deterrent when grazed on the same pastures as dairy cows.

What sizes and types of flock were kept and what were the main breeds?

The average size of flock was $4\frac{1}{2}$ score of ewes. The smallest flock numbered $1\frac{1}{2}$ score and the largest 8 score. There were more flocks under 5 score of ewes than over.

Even within this small sample of 16 farms a variety of breeds of sheep and systems of management were encountered. While there were seldom two farmers working along identical lines, most flocks fell into one or other of two main groups - permanent flocks with ewes in regular ages (regular flocks) and flying flocks composed usually of draft ewes. Five of the farmers kept two flocks, one of each type, and the remainder had either one type or the other, sometimes made up of more than one breed of ewe.

The 9 regular flocks consisted typically of Greyface ewes (occasionally Half-Breds) run with the Suffolk tup. One farmer had Kerry Hills.

-
- (1) Rough grazing was adjusted in acreage on the basis of its value as ordinary pasture. The actual adjustment varied from farm to farm depending on the quality of the rough grazing.

There were 12 flying flocks, the majority of which consisted of Blackface ewes mated to the Border Leicester tup. One farmer had Cheviots on this system, crossed with the Suffolk tup.

Some farmers sold ewes with lamb at foot in the spring and one sold his lambs as stores, but the major part of the lamb crop passed through the fat market in the summer or autumn. A few Greyface ewe lambs went for breeding.

What was the rate of stocking with ewes?

On average over the year there were 50 ewes and the equivalent of 47 adult cattle per 100 farm acres (adjusted). On a few farms lambs were purchased for fattening, or grazing was let for hogg wintering.

Taking ewe numbers at tuppings over the group as a whole, there was, on average, 1 ewe for every $1\frac{3}{4}$ farm acres (ignoring all other stock). The stock carry varied from a relatively heavy rate of almost 1 ewe per farm acre to 1 ewe per $4\frac{1}{2}$ acres. Just over half of the farmers carried between 1 ewe per acre and 1 ewe per 2 acres.

During the grazing season the ewe-carry was about 1 ewe per $1\frac{1}{3}$ acres of pasture (ignoring all other stock). In the majority of cases the ewe flock outnumbered the dairy cows. Taking all cattle into account and expressing them in terms of "cow equivalents" there was, on average, 1 ewe per cow equivalent, over the summer.

Converting all grazing livestock (including ewes) into terms of cow equivalents, the average stock-carry was just under 1 cow equivalent per acre of summer grazing.

With two exceptions all the farmers interviewed expressed the opinion that their farms could not maintain a higher ewe stock than that being carried.

Have there been recent changes or are there likely to be changes in the organisation of the ewe flocks on the farms visited?

There is a definite trend away from the Blackface in favour of the Greyface ewe as the crossing female. Many farmers had either made this change wholly or partly, or were intending to do so. It was held that the casualty rate among the draft Blackface ewes was unjustifiably high, the land being too "strong" for a hill ewe. The highest death rate recorded was 18% (this was actually in a Greyface flock) but, in this case, the ewes were 6-crop so the flock was not typical. The death rate among the heavier type of ewes was on average considerably lower than that in the Blackface flocks. (See p.7).

Other reasons given for changing to the Greyface ewe were the desire to market an earlier lamb and the tendency for the Blackface lambing to clash with the busy spring cultivation period.

The preference for any one breed of ewe or another was influenced to some extent by short-term price fluctuations. If, for instance, Greyface or Half-Bred gimmer prices were considered to be on the high side when replacements were required, farmers tended to buy draft hill ewes instead.

Many of the farmers interviewed expressed a decided preference for the ewe flock as opposed to hogg wintering. It is considered much less remunerative to let hogg wintering than to carry one's own breeding stock, and some farmers had stopped taking hogs in recent years.

SOME MANAGEMENT ASPECTS

When did the rams go out? Were the ewes flushed?

Among the draft ewe flocks in general the latter part of October marked the start of the tupping period, though one farmer had the rams out in mid-September. In the Greyface flocks there was more variation in this respect and tupping started between August and mid-October, with the first half of September being the most popular period.

Over all flocks there was, on average, 1 ram for every 30 ewes.

Most flocks were flushed either on clean pasture or on hay foggage. Some farmers were of the opinion that the ewes were in sufficiently good condition without flushing. This applied mainly to the Greyface flocks - in nearly every case the Blackface ewes were put on to fresh pasture before tupping time.

Were the flocks hand-fed?

In all cases except one (a draft Blackface flock) the ewes received some concentrates during the winter. The ration commonly consisted largely of oats which accounted for about $\frac{2}{3}$ of the feed. The heaviest ration recorded was $1\frac{3}{4}$ cwt. per ewe in a Greyface flock. Over the draft Blackface flocks the average concentrate ration was about $\frac{1}{2}$ cwt. per head. In the Greyface flocks it was 1 cwt. per head. The longest hand feeding period spanned 6 months starting in December, but in most cases feeding began in January or February. Farmers feeding turnips were in a minority and this practice was associated mainly with Greyface ewes. Where turnips were fed the average ration was about 3 cwt. per ewe. Virtually no hay was offered.

Were there any disease problems?

Preventative measures were commonly taken against worms (in both ewes and lambs) and pulpy kidney and lamb dysentery among the lambs. Pregnancy toxaemia had proved troublesome in a number of cases and several flocks had suffered the effects of abortion, or from trouble at lambing in the form of milk fever, "hanged" lambs or "silly" lambs.

What was the flock replacement policy?

Replacements for the flying flocks were bought as 4-5 crop draft hill ewes and retained for 1 year, generally. In some cases a few of the better ewes were held over for a further season.

In the regular flocks replacements were usually purchased as gimmers and kept for 4 lamb crops. Some farmers, having both Blackface and Greyface ewes, held over sufficient Greyface ewe lambs for replacement purposes, and tupped them at the hogg stage. In such cases 5 lamb crops were taken before the ewes were disposed of.

What size of lamb crop was being obtained?

Expressed as a percentage of ewes tupped the lamb crop for disposal in the summer and autumn averaged 119% for the flocks using Blackface ewes. The best result was an individual farm figure of 142 lambs per 100 ewes, while at the other end of the range the worst result was 100 lambs per 100 ewes tupped. The flock which put up the best performance was the smallest in the sample. The ewe death rate in this flock was relatively low (6%) and there was a good proportion of twin lambs. The main reason for the poor showing on the part of the flock with the lowest lamb crop was that a high proportion of the ewes became ineffective prior to lambing through deaths, abortion, sale of poor doers, etc. About 30% of the ewes on the farm at the beginning of the season were affected in this way.

The lamb crop for disposal averaged 144% in the Greyface flocks. The figures varied over a range of 100% to 180%. The main reason for low lamb crops on the two farms with the worst performance was that many lambs died shortly after birth.

Were the dairy cattle on these farms short of grass because of competition from the ewes?

About one third of the farmers interviewed said that the ewe flock did not cause grass to be scarce in the spring, nor require that the pastures had to be manured more heavily or that some young cattle had to be summered off the farm. The majority of farmers, however, felt that the effect of the ewes was adverse in one or more of the above senses. It was commonly remarked that, in the absence of sheep, cows could be put out to the grass earlier in the spring, or young stock currently grazed away could be pastured at home.

On farms where grass was reported to be scarce the average stocking rate over the winter (ignoring other farm livestock) was 1 ewe per 1.4 acres, and this was about twice as heavy as on the other farms where the ewe carry averaged 1 ewe per 2.7 acres.

Several farmers made a practice of shutting up a field of grass for the cows in the spring and the ewes were kept off this field. This policy allowed the cows to go to grass relatively early.

On most farms the ewes grazed the same pasture as the young dairy stock. On a few farms some sheep were kept in every field, and in a small minority of cases the ewes grazed alongside the cows.

Did the management of the ewes take up much time?

The ewe flocks did not make much demand on labour. Most farmers did the shepherding themselves and the flocks required little attention except during the lambing, clipping and dipping periods. Two farmers thought that other farm operations were sometimes affected because of the demand for labour at lambing time, but in the remaining cases farmers were able to manage the ewes during lambing without adverse effect on other farm work.

PROFITABILITY

Since the ewe flock is very largely a subsidiary enterprise on these dairy farms, many of the costs included in conventional cost accounting can be ignored in measuring the contribution which the flock makes to over all farm profit. Items such as the regular wage bill, rent, fertiliser costs, etc., have to be met whether there are ewes on the farm or not, and therefore it is not necessary to charge a share of such costs against the ewes. This argument applies, of course, only where sheep production is on a minor scale compared to milk production.

Costs which are directly chargeable against the ewes are those costs which would be saved if the ewe flock was to be dispensed with, or conversely, which are not incurred unless ewes are introduced. These direct costs include ewe replacement, ram replacement, concentrate feed, veterinary and miscellaneous expenses, interest on capital invested in the sheep enterprise, and any special expenditure on crop or grass production associated with the ewe flock. Where young cattle stock have to be grazed away from the farm in order to leave enough grass for the ewes, the ewes should be charged with this cost.

The balance left (i.e. the Gross Margin) after deducting direct costs from revenue is a measure of the profitability of the ewe flock.

It shows how much the ewes contributed to farm profit, or conversely, by how much profit would be reduced if the flock was to be disposed of.

Data collected in the course of the survey, which covered the 1961 lamb crop year, was used for calculating the average Gross Margin realised by the ewe flocks on the farm visited. For the two main types in the sample, the draft Blackface flock and the regular Greyface flock, the Gross Margins, on a 50-ewe basis, were £338 and £391 respectively (£6:15/- and £7:16/- per ewe).

The calculations which follow show how these Gross Margins were derived.

I. The Draft Blackface Flock
(50-ewe basis)

| <u>Revenue</u> | | | |
|----------------------------|---------------------|-----------|-------------|
| 60 lambs | @ £7: 3/- | | £429 |
| Wool | | | 46 |
| 45 cast ewes | @ £3:12/- | | <u>162</u> |
| | | | £637 |
| <u>Less Direct Costs</u> | | | |
| 50 draft ewes | @ £3:15/- | £188 | |
| Tup replacement | | 8 | |
| Concentrate feed | | 30 | |
| Vet. & miscellaneous costs | | 35 | |
| Turnips | | - | |
| Grazing costs | | 27 | |
| Interest on capital | | <u>11</u> | <u>299</u> |
| | <u>GROSS MARGIN</u> | | <u>£338</u> |

II. The Regular Greyface Flock
(50-ewe basis)

| <u>Revenue</u> | | | |
|----------------------------|---------------------|-----------|-------------|
| 72 lambs | @ £7:16/- | | £562 |
| Wool | | | 62 |
| 10 cast ewes | @ £5: 4/- | | <u>52</u> |
| | | | £676 |
| <u>Less Direct Costs</u> | | | |
| 13 gimmers | @ £10: 6/- | £134 | |
| Tup replacement | | 8 | |
| Concentrate feed | | 60 | |
| Vet. & miscellaneous costs | | 32 | |
| Turnips | | 3 | |
| Grazing costs | | 27 | |
| Interest on capital | | <u>21</u> | <u>285</u> |
| | <u>GROSS MARGIN</u> | | <u>£391</u> |

NOTES ON THE DATA FROM WHICH THE ABOVE ESTIMATES
WERE DERIVED

I. The Draft Blackface Flocks

Lamb weight records were kept in seven of the flocks. The average dressed carcass weight was 47 lb. Lambs from the flock with the highest price average (£8: 7: 0) were marketed over a relatively long period of 7 months, ending in January, 1962. The average dressed carcass weight in this flock - 52 lb. - was easily the highest recorded in the Greyface lamb group.

Over the group as a whole, marketing appeared to reach a peak in August and declined steadily in the months following. For one flock November was the month of heaviest marketing, and in that month the lambs sold at 56 lbs. deadweight and realised £8:15/- per head.

Expressed "per ewe tupped" the wool clip (including tups' wool) averaged around 18/-. This is, of course, lower than the value per fleece because of ewe deaths or sales between tupping and clipping.

Most of the cast ewes were sold after rearing their lambs, but some were discarded as eild ewes, ewes which had lost their lambs, poor doers, etc. The average sale price of these cast ewes was only slightly lower than the purchase price although, in the main, the ewes were one year older. The most likely explanation of this is that whereas the draft ewes were purchased in store condition, the cast ewes were sold mainly fat. The difference of 5 ewes between the numbers bought and sold represents a death rate of 10%.

The charge made for a ram is the difference between the buying price and the selling price divided by the number of seasons of work. The average cost was £4 per ram per year. For 50 ewes 2 rams would be required.

Concentrate feed cost 12/- per ewe tupped.

Capital invested in the sheep enterprise was associated almost exclusively with the ewes and rams themselves. There was very little invested in such things as dippers, shearing sheds, etc. Interest has been charged at 5% on an approximate investment of £215 per 50 ewes.

II.

The Greyface Flocks

Lambs averaged £7:16/- per head. Over six flocks for which weight records were kept the average deadweight was 52 lb. per head. The lowest recorded deadweight was 44 lb. and the highest 56 lb. Lambs at this higher weight sold at £8: 6/- per head. A considerable proportion of these were sold from October onwards. One farmer started selling lambs at the end of May, but the evidence available suggested that July was the month of heaviest marketing over the group as a whole.

Wool sales averaged 25/- per ewe tupped.

The average ewe sale price was £5:4 per head. Relatively few purchases of replacement ewes were recorded, but from such data as was available, the average price appeared to be about £10 per gimmer. The ewe death rate was 6%.

The cost of concentrates averaged 24/- per ewe tupped.

Tup replacement cost the same as in the Blackface flocks.

Interest has been charged at 5% on capital invested, which has been estimated at £425 per 50 ewes.

III. Because of the difficulty of separating out the cost of veterinary items, dip, etc. according to flock type and breed of ewe the same charge for these items has been used in each calculation. "Miscellaneous costs" cover veterinary items, dip, haulage, market commission and fencing. Veterinary items and dip have been charged at 3/6 per ewe for both flock types. The haulage estimate is at a slightly higher level in the Blackface flock calculation because of the greater number of sheep moved to and from market. Direct fencing costs have been charged arbitrarily at £10 per 50 ewes.

As was stated earlier most farmers indicated that the ewes restricted the cows' grazing, or caused young stock to be grazed off the farm, or had some other such limiting effect. The direct cost of all these effects has been estimated from the quantitative data supplied and approximates £1 per ewe on those farms where the ewe flock caused scarcity of grass, (2)

Turnips were fed on a minority of farms to Greyface ewes. Direct costs amounted to 2/- per ewe in turnip fed flocks.

(2) For present purposes it is assumed that this cost, per head, is the same for both Blackface and Greyface ewes.

ALTERNATIVES TO THE EWE FLOCK

In deciding how to use the resources of the farm the farmer is faced with the problem of choosing between alternative enterprises. Hogg wintering is an alternative activity to keeping ewes. Cattle can also be regarded as being competitive with ewes.

The Gross Margin technique can be employed to show which of a number of competing activities is likely to be the most profitable, or to indicate how profit is likely to be affected as a result of a change over from one type of production to another. This approach is demonstrated in the discussion which follows. The Gross Margin figure for ewes is based on data collected in the survey. The other figures are given for illustrative purposes only. Conditions vary from farm to farm, so no one set of calculations is of general application.

Ewe Hoggs

All the farmers taking part in the survey were asked what they would substitute for ewes were the ewe flock to be replaced. The majority said they would try hoggs for wintering and suggested a replacement rate of about one hogg for one ewe. Assuming that hogg wintering earns £40⁽³⁾ per score, a much higher replacement rate than one hogg to one ewe would be needed in order to secure a return from hoggs alone comparable with that earned by the ewe flock in the 1961 lamb crop year. A replacement rate of about 3 hoggs to one Blackface ewe and 4 hoggs to one Greyface ewe would be required. The actual figures are:-

| | <u>Gross Margin</u> |
|-------------------|---------------------|
| Per Blackface ewe | £6:15/- |
| Per Greyface ewe | £7:16/- |
| Per 3 hoggs | £6: 0/- |
| Per 4 hoggs | £8: 0/- |

This straight comparison is biased in the sense that the hoggs are on the farm for the winter period only, whereas a flock of ewes occupies land for a whole year. It may, therefore, be more realistic to consider a combination of hoggs for wintering and cattle grazers taken on for the summer period.

Ewe Hoggs and Cattle Grazers

Assuming that the substitution rate of hoggs for ewes is 1:1, there is a balance in favour of the ewes of £4-£6, depending on breed. If young cattle could be taken for summering at £5 per head and at the rate of 1 beast in place of every ewe, this hoggs and cattle combination would show about the same return as the ewe flock. Such a high level of replacement of cattle for ewes is, however, probably impracticable.

Apart from financial aspects some farmers favour hoggs because less labour is needed than for a ewe flock. With hoggs, also, the level of return is known in advance and no capital need be committed, consequently the element of risk is less than with the ewe flock.

Hogg Fattening and Cattle Grazers

The same approach can be extended to the alternative combination of fattening purchased hoggs and letting summer grazing. Figures from the West of Scotland College costings⁽⁴⁾ suggest that, in one recent year, the Gross Margin per head on hogg fattening was lower than that on hogg wintering.

(3)

It is assumed that the presence of hoggs does not reduce the amount of grass available for cattle grazing. If this assumption is unrealistic hoggs show up even less favourably vis-à-vis ewes.

(4)

The West of Scotland College Economics Department Report No. 77, October, 1961.

Assuming that a Gross Margin of 20/- per head can be expected, 7 lambs would have to be bought for fattening per Blackface ewe replaced in order to equate returns, 4-5 lambs where the Gross Margin was 30/-, etc. Here again some combination of hogg fattening and grazing let might be considered.

Dairy Cows

Some farmers may be considering a reduction in the size of the dairy herd in order to make room for a ewe flock, or so that more ewes can be kept. One question arising out of this situation is "How many ewes would have to be carried for every cow replaced in order to maintain farm profits?" The answer will depend on such factors as the level of milk yields, whether any wage saving is possible, the system of feeding employed, the performance of the ewe flock, etc., and answers will vary from farm to farm.

One general approach which can be applied to this problem at the farm level is to estimate the Gross Margin per dairy cow and per ewe and from this to calculate the number of ewes which would be required to earn the same Gross Margin as a dairy cow. The following figures are presented as an illustration of this approach. They are not of general application since conditions will vary from one farm to the next.

For ease of calculation the Gross Margin on cows is worked out, initially, on a 20 cow basis.

20 DAIRY COWS

Assume that:

- 1) Annual milk sales are 750 gals. per cow, at 2/10 per gal.
- 2) 18 calves are born annually - 5 heifers are retained, and the remainder sold.
- 3) The calves retained are reared to replace 4 cast cows and 1 cow casualty.
- 4) All concentrates, including grain, are purchased. Cows consume 20 tons annually and the young stock $2\frac{1}{2}$ tons.
- 5) Hay is the only roughage feed - it is home-grown. 24 acres are required for the cows and the young stock.

Revenue

| | |
|---------------------------|--------------|
| 20 cows @ 750 gal. @ 2/10 | £2125 |
| 13 calves @ £3 | 39 |
| 4 cast cows @ £35 | 140 |
| | <u>£2304</u> |

Less Direct Costs

| | | |
|--|---------------------|--------------|
| Concentrates: Cows - 20 tons @ £30 | £600 | |
| Young stock - $2\frac{1}{2}$ tons @ £25 | 63 | |
| Haymaking: 24 acres @ £ 4 | 96 | |
| Veterinary and miscellaneous | 110 | |
| Interest on capital invested in the cattle (excluding buildings, etc.) | <u>70</u> | <u>939</u> |
| | <u>GROSS MARGIN</u> | <u>£1365</u> |

Gross Margin per Cow - £68

The figure of £68 per cow is comparable with the Gross Margin for ewes arrived at earlier, and has the same significance i.e. as the herd is reduced in size, farm profit drops by £68 per cow. In order to maintain profits, therefore, ewes would have to be substituted at the rate of $\frac{68}{6.8}$ Blackface ewes per cow or $\frac{68}{7.8}$ Greyface ewes per cow, that is 10 ewes or 9 ewes respectively. This line of argument applies only to relatively small changes in the scale of operation of enterprises. Where, for instance, the proposed reduction in size of the dairy herd was large enough to affect the wage bill, or machinery costs, a rather different type of budget is required to deal with this problem.

In terms of the calculation given the higher the milk yield above the level in the example, the more ewes would be required to keep up profits. Conversely, the better the lamb crop, the smaller the number of ewes needed.

Dairy Beef

Dairy beef production is another alternative to the ewe flock. As in the previous case it is possible to estimate the Gross Margin on dairy beef for comparison with that from ewes.

Working on the basis of an annual throughput of 10 finished beef cattle, selling at around 2 years, assume that:-

- 1) Dairy beef calves are home-bred. They are worth £10 as calves.
- 2) Concentrate input is 16 cwt. per beast fattened. All concentrates are purchased.
- 3) Home-grown hay is the only roughage feed supplied, 6 acres are required

Revenue

| | | | | |
|-------------|--|------------|------|---------------------|
| | 10 fat cattle | @ £75 | | £750 |
| | 10 calf subsidies | @ £ 8: 5/- | | <u>82</u> |
| | | | | £832 |
| <u>Less</u> | 10 calves | @ £10 | £100 | |
| | 8 tons concentrates | @ £28 | 224 | |
| | Milk and milk substitute | | 35 | |
| | Haymaking: 6 acres | @ £ 4 | 24 | |
| | Miscellaneous costs | | 15 | |
| | Interest on capital invested in the cattle | | 40 | <u>438</u> |
| | | | | £394 |
| | | | | <u>GROSS MARGIN</u> |

Gross Margin per beast fattened - £39

At Gross Margins of £6:15/- and £7:16/- respectively 6 Blackface ewes and 5 Greyface ewes would give about the same return as one fat beast. Since beef production is assumed to take about 2 years there would be one younger beast on the farm for each one being finished, so the breakeven stocking rate would be 3 Blackface ewes or 2-3 Greyface ewes per beef beast. Again it is assumed that labour and all other costs not taken into account are unaffected irrespective of whether ewes or beef cattle are maintained.

SUMMARY AND DISCUSSION

The main management features of some ewe flocks on dairy farms in the South-West of Scotland have been described. The average Gross Margin on ewes was calculated for the 1961 lamb crop year and illustrations were given of how to compare the relative profitabilities of the ewe flock and other enterprises (the ewe flock data being based on average figures derived from the flocks sampled.)

Variations from year to year in such factors as ewe death rates, lambing performances and price levels can have a material effect on profitability. Thus, a dairy farmer who wishes to measure the contribution which the ewe flock makes to farm profit should study its physical and financial performance over a number of years. In budgeting for future years these estimates should be modified to take account of changing practices, prices and costs. Are lamb prices likely to fall? What effect would a reduction of 1d per lb. have on the profitability of the ewe flock, other things being equal? Forecasts are, of course, extremely difficult to make, but an intelligent guess is better than a shot in the dark.

APPENDIX

SCOTTISH FAT LAMB PRICES, JUNE-DECEMBER, 1961
(Auction prices plus deficiency payments)

| <u>Week Ending</u> | <u>Average Price per lb.</u> | |
|--------------------|--------------------------------------|--------------------|
| | <u>Dressed Carcase Weight Range:</u> | |
| | <u>17 - 45 lb.</u> | <u>46 - 55 lb.</u> |
| 6/5/61 | 4/0 $\frac{1}{4}$ | 4/0 $\frac{1}{4}$ |
| 13 " " | 4/0 $\frac{3}{4}$ | 3/11 $\frac{3}{4}$ |
| 20 " " | 4/0 $\frac{1}{2}$ | 4/1 |
| 27 " " | 3/11 | 3/10 $\frac{3}{4}$ |
| 3/6/61 | 3/10 | 3/9 $\frac{3}{4}$ |
| 10 " " | 3/5 $\frac{1}{4}$ | 3/6 $\frac{1}{4}$ |
| 17 " " | 3/3 $\frac{3}{4}$ | 3/4 $\frac{1}{2}$ |
| 24 " " | 3/4 $\frac{1}{2}$ | 3/4 $\frac{3}{4}$ |
| 1/7/61 | 3/2 $\frac{3}{4}$ | 3/3 |
| 8 " " | 3/0 $\frac{1}{4}$ | 3/0 |
| 15 " " | 3/0 $\frac{3}{4}$ | 3/0 |
| 22 " " | 3/2 | 3/1 $\frac{1}{4}$ |
| 29 " " | 3/0 $\frac{1}{4}$ | 3/0 |
| 5/8/61 | 3/0 | 2/11 |
| 12 " " | 3/2 | 2/11 $\frac{1}{2}$ |
| 19 " " | 3/1 | 2/10 $\frac{1}{2}$ |
| 26 " " | 3/0 $\frac{1}{2}$ | 2/10 $\frac{1}{4}$ |
| 2/9/61 | 3/0 $\frac{3}{4}$ | 2/11 $\frac{1}{4}$ |
| 9 " " | 3/2 $\frac{1}{4}$ | 3/0 |
| 16 " " | 3/3 $\frac{1}{2}$ | 3/1 $\frac{1}{4}$ |
| 23 " " | 3/3 $\frac{1}{4}$ | 3/0 |
| 30 " " | 3/3 $\frac{3}{4}$ | 3/0 $\frac{1}{2}$ |
| 7/10/61 | 3/5 | 3/1 $\frac{1}{4}$ |
| 14 " " | 3/5 $\frac{1}{4}$ | 3/1 $\frac{1}{4}$ |
| 21 " " | 3/5 | 3/1 $\frac{1}{4}$ |
| 28 " " | 3/4 $\frac{3}{4}$ | 3/1 $\frac{1}{2}$ |
| 4/11/61 | 3/4 $\frac{1}{2}$ | 3/1 $\frac{1}{2}$ |
| 11 " " | 3/5 | 3/2 $\frac{1}{4}$ |
| 18 " " | 3/4 $\frac{3}{4}$ | 3/2 $\frac{1}{4}$ |
| 25 " " | 3/6 $\frac{1}{2}$ | 3/4 |
| 2/12/61 | 3/7 $\frac{1}{2}$ | 3/5 |
| 9 " " | 3/8 | 3/6 |
| 16 " " | 3/7 $\frac{3}{4}$ | 3/5 $\frac{3}{4}$ |
| 23 " " | 3/6 | 3/4 $\frac{1}{4}$ |
| 30 " " | 3/8 $\frac{1}{4}$ | 3/7 |

Source:

Department of Agriculture and Fisheries for Scotland,
Weekly Agricultural Market Reports (from twelve
representative Scottish markets).