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Sheep - Carcass production O.S.

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HOGG FATTENING - WINTER 1956-57

SOME RESULTS OF SHEEP FATTENING ON 13 FARMS

J. F. MACPHERSON

HOGG FATTENING - WINTER 1956-57

SOME RESULTS OF SHEEP FATTENING ON 13 FARMS

CONTENTS

| | <u>Page</u> |
|--|-------------|
| <u>FOREWORD</u> | 1 |
| <u>PRELIMINARY DEFINITION OF SOME TERMS</u> ... | 1 |
| <u>SUMMARY</u> | 1 |
| <u>THE SAMPLE</u> | 2 |
| <u>PROFITABILITY</u> | 2 |
| <u>PRICES</u> | 3 |
| <u>MANAGEMENT AND FEEDING</u> | 4 |
| <u>COSTING METHOD AND TERMS</u> | 4 |
| <u>APPENDIX TABLES</u> | |
| Table I Numbers of sheep handled, periods kept, etc. | 7 |
| Table II Average number of weeks kept, average weights of bought feed, home grain and roots used. | 8 |
| Table III Acreage of roots, number of weeks folded, number of sheep per acre, etc. | 9 |
| Table IV Average cost structure per head (calculated per sheep sold). | 10 |
| Table V Average margins and returns. | 11 |

HOGG FATTENING - WINTER, 1956-57

SOME RESULTS OF SHEEP FATTENING ON 13 FARMS

FOREWORD

The results of a study of the costs of fattening hogs on thirteen cropping farms during the winter 1956-57 are presented in this report.

Seven of the farms were in West Perthshire and the remaining six in Dumfriesshire.

In all, nineteen cost records covering 3,524 sheep were prepared, since on some farms more than one breed of sheep was fattened.

The small survey from which information for this report was obtained, was carried out on lines similar to those of the survey of the previous year.

Grateful acknowledgment is made of the help received from the farmers who gave information for this survey.

PRELIMINARY DEFINITION OF SOME TERMS

Margin

The margin is the difference between the average selling price per head (including guarantees) of sheep sold and the average purchase price per head of sheep bought.

Gross Margin

The gross margin is the difference between the average selling price per head (including guarantees) of sheep sold and the average cost price per head obtained by dividing the total purchase price of a number of sheep, not by the number bought, but by the number actually sold. By this method, deaths and casualties etc. are taken into account.

Cash Surplus

The cash surplus is the balance remaining after the deduction from the gross margin of direct cash outlays on bought feed, dip, medicines, haulage and commission etc.

Surplus

This is the final balance which remains after all other costs (estimated cost of home grown feed, roots, grazing, etc., labour and power and estimated overheads) have been deducted from the cash surplus, and a credit allowance made for sheep unsold at the end of the costing, for receipts for casualties and for the residual values of feeding stuffs. All the items in the per head cost structure including the credit allowances are calculated per sheep sold.

SUMMARY

Financial and costing information on nineteen lots of sheep (totalling 3,524 at the start of the costing) is given.

The general average of the margin (selling price including guarantees less purchase price), was £2.13.11. per head. When deaths and casualties etc. were taken into account the general average of the gross margin (calculated on the numbers of sheep sold) was £2.12. 1. per head. After direct cash outlays, which amounted to 7/9d. per head, were deducted from the gross margin, a cash surplus of £2. 4. 4. per head remained. Of the

remaining items, the cost of home grown turnips was the highest averaging 18/7d. per head.

After all cost items etc. were taken into account there was a general average surplus over the whole sample of 12/10d. per head.

Of the nineteen records, eighteen showed a surplus and one a deficit.

THE SAMPLE

This has been grouped according to breeds as follows:-

| <u>Breed</u> | <u>No. of Costs</u> | <u>Total No. of Sheep</u> |
|-------------------------|---------------------|---------------------------|
| Suffolk cross | 2 | 454 |
| Cross (greyface) | 9 | 1,436 |
| Cheviot (South Country) | 2 | 523 |
| Blackface | 4 | 799 |
| Others ^x | 2 | 312 |
| Total | 19 | 3,524 |

^xThis refers to 1 Half-bred lot and 1 North Country Cheviot lot which are included in the total but are not shown separately.

PROFITABILITY

The margin between the average buying-in price and the average selling price (including guarantee payments) is shown below:-

| <u>Breed</u> | <u>No. of costs</u> | <u>Average Selling Price (incl. guarantees)</u> | <u>Average Buying-in Price</u> | <u>Margin</u> |
|---------------|---------------------|---|--------------------------------|---------------|
| | | £. s. d. | £. s. d. | £. s. d. |
| Suffolk cross | 2 | 9. 6. 9. | 6.13. 4. | 2.13. 5. |
| Cross | 9 | 7.16.10. | 4.19. 5. | 2.17. 5. |
| Cheviot | 2 | 6.19. 4. | 4. 1. 5. | 2.17.11. |
| Blackface | 4 | 5.17. 6. | 3.16. 3. | 2. 1. 3. |
| All | 19 | 7.10. 5. | 4.16. 6. | 2.13.11. |

(incl. the 2 costs not shown separately)

When the calculations are based on the number of sheep actually sold, i.e. when deaths and casualties are taken into account, the resulting gross margin averaged as follows:-

| <u>Breed</u> | <u>Gross Margin</u> |
|---------------|---------------------|
| | £. s. d. |
| Suffolk cross | 2.10. 9. |
| Cross | 2.16. 0. |
| Cheviot | 2.15. 6. |
| Blackface | 1.19. 3. |
| All | 2.12. 1. |

(incl. the 2 costs not shown separately)

After direct cash outlays on bought feed, dip, medicines, haulage and commission etc., were deducted from the gross margin, the average cash surplus which remained was as follows:-

| <u>Breed</u> | <u>Cash Surplus</u> |
|--|---------------------|
| | £. s. d. |
| Suffolk cross | 2. 5. 4. |
| Cross | 2. 6. 8. |
| Cheviot | 2. 8. 10. |
| Blackface | 1. 14. 11. |
| All | 2. 4. 4. |
| (incl. the 2 costs not shown separately) | |

It was out of the above cash surplus that all other costs had to be met before the final surplus figure was reached.

When all these other costs (home grown feed, roots, grazing etc., labour and power and estimated overheads) were deducted from the cash surplus, and a credit allowance made for sheep unsold at the end of the costing, for receipts for casualties and for the residual values of feeding stuffs, it was found that eighteen of the costings showed a surplus and the remaining one a deficit.

The lot showing a deficit was a small number of Cross-breds bought late in the feeding season in March at a considerably higher price than those bought earlier.

The average surplus per head for each group was as follows:-

| <u>Breed</u> | <u>No. of Costs</u> | <u>No. of sheep sold</u> | <u>Surplus</u> |
|--------------------------------------|---------------------|--------------------------|----------------|
| Suffolk cross | 2 | 445 | 12/7d. |
| Cross | 9 | 1,415 | 13/- |
| Cheviot | 2 | 508 | 16/8d. |
| Blackface | 4 | 799 | 14/4d. |
| All | 19 | 3,456 | 12/10d. |
| (incl. 2 costs not shown separately) | | | |

Tables IV and V in the Appendix give financial information about the cost structure and margins and returns.

PRICES

The graph prepared from the price quotations given in the agricultural press, shows the averages of the weekly prices for light, medium and heavy lambs and hoggets at Dumfries and Perth, from September 1956 to May 1957.

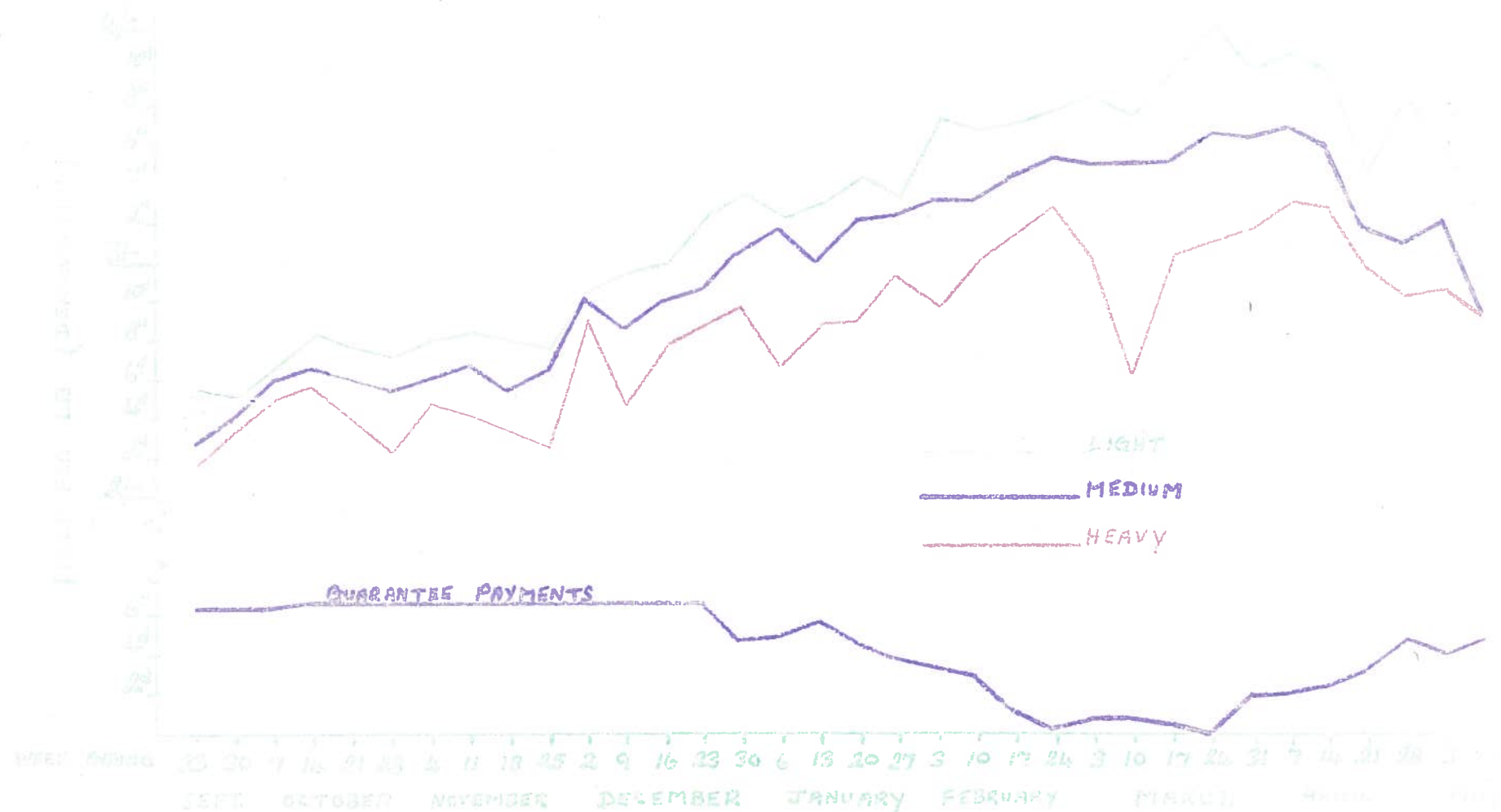
The guarantee payments made during the same period are also shown on the graph.

The average prices per lb. (including guarantees) and the average deadweight (actual or estimated) in lbs per head of the sheep in the sample were as follows:-

| <u>Breed</u> | <u>Price</u> | <u>Deadweight lbs</u> |
|--|-------------------------------------|-----------------------|
| Suffolk cross | 3/4d. | 56 |
| Cross | 3/7 ³ / ₄ d. | 44 |
| Cheviot | 3/11 ³ / ₄ d. | 35 |
| Blackface | 3/9 ³ / ₄ d. | 31 |
| All | 3/7 ¹ / ₂ d. | 42 |
| (incl. the 2 costs not shown separately) | | |

FAT LAMB AND HOGGET PRICES (EXCL. GUARANTEES) — SEPT. '56 TO MAY '57

AVERAGE OF DUMFRIES AND PERTH MARKETS



SOURCE: — SCOTTISH AGRICULTURAL ADVICE

MANAGEMENT AND FEEDING

In all, 3,524 sheep were costed. Generally they were purchased in the late summer of 1956 and after a period of grazing were folded on swedes and turnips and fattened off.

The Suffolk crosses, Cheviots (including the one North Country lot) and the Half-bred lot were all fed a supplementary mixture of oats and bought sheep feed concentrate while on roots.

Of the nine lots of Cross-breds six received this supplementary feeding mixture, while three did not.

Of the four Blackface lots three received this supplementary mixture, while the remaining one did not.

All the Suffolk crosses, Cheviots and Half-breds were folded on roots. One lot of South Country Cheviots had additional roots carted out, and the North Country Cheviots and Half-breds had additional roots cut for them.

Of the nine Cross-bred lots seven were folded on roots, and two of these seven received additional roots. The remaining two were not folded on roots. Of these two one received turnips carted out, while the other was not fed any turnips at all.

Of the four Blackface lots two were folded on roots. The remaining two were not folded, but one lot received turnips carted out, while the other did not.

The sheep which received no turnips were fattened on rape. A few of the turnip fed sheep were also grazed on rape.

Since the sheep in any one lot were not always sold at the one time but were drawn off as they became ready for market, the average length of period of grazing and folding for each lot has been calculated on sheep days and sheep weeks, and is based on the numbers finally sold.

Tables I, II and III in the Appendix give the main physical data about the sample.

COSTING METHOD AND TERMS

Home bred sheep

These have been valued in at the farmer's estimate of their market value at the beginning of the costing period.

Sheep sold store

Those sheep which were sold store have also been included in the costing, since it was possible to give an estimated deadweight at the time of sale.

Credits

Credits have been allowed for any sheep on hand at the end of the costing period and for any receipts for casualties.

Residual values of feeding stuffs have also been credited, having been calculated according to the tables in the Eighth Report (1956) of the Scottish Standing Committee appointed to deal with this.

CHARGES ETC. IN THE COST STRUCTURE

Bought feed

This has been charged at the price the farmer paid for it.

Oats

Home grown oats have been charged at 18/- per cwt.

Turnips

These have been charged at £40 per acre where the sheep were folded and at £2 per ton when carted out to the sheep.

During the fattening period turnips were if anything more than plentiful. The average estimated yield in this costing was 27 tons per acre.

Hay

Home grown hay has been charged at £9 per ton.

Rape

The charge for this was based on the farmer's estimate and varied from £7 to £9 per acre.

Grazing

The estimates of charges for home grazing varied from 6d. to 1/3d. per head per week. The commonest estimated costs were 9d. and 1/- per head per week.

Labour

All labour (farmer, family and hired) has been charged at a flat rate of 3/9d. per hour.

In certain cases a small element of power (when, for example, turnips were taken out to the sheep) has been included under the labour heading and has been calculated at 3/9d. per tractor hour.

Miscellaneous expenses

These include the cost of dip and of any medicines or inoculations.

Overheads

These have been based on the labour bill (excluding power) and have been charged at the rate of 7/- per £ labour.

The terms, margin, gross margin, cash surplus and surplus have already been defined earlier in the report.

HOGG FATTENING - WINTER 1956-57

APPENDIX

| | |
|-----------|--|
| TABLE I | Numbers of sheep handled, periods kept, etc. |
| TABLE II | Average number of weeks kept, average weights of bought feed, home grain and roots used. |
| TABLE III | Acreage of roots, number of weeks folded, number of sheep per acre, etc. |
| TABLE IV | Average cost structure per head (calculated per sheep sold) |
| TABLE V | Margins and returns. |

APPENDIX TABLE I

HOGG FATTENING - WINTER 1956-57

NUMBER OF SHEEP HANDLED, PERIODS KEPT, ETC.

| | <u>Suffolk cross</u> | <u>Cross</u> | <u>Cheviot</u> | <u>Blackface</u> | <u>Total[≡]</u> |
|---|----------------------|------------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| Number of costs | 2 | 9 | 2 | 4 | 19 |
| Average of numbers costed | 227 | 160 | 262 | 200 | 185 |
| Range of numbers costed | 53-401 | 34-478 | 212-311 | 25-432 | 25-478 |
| Earliest purchase date | 22/8/56 | 25/8/56 | 3/8/56 | 17/8/56 | 3/8/56 |
| Latest purchase date | 20/9/56 | 8/3/57 | 15/12/56 | 9/11/56 | 8/3/57 |
| Earliest selling date | 18/9/56 | 6/12/56 | 28/12/56 | 11/10/56 | 18/9/56 |
| Latest selling date | 13/1/57 | 6/5/57 | 29/4/57 | 16/3/57 | 6/5/57 |
| Total number home bred | 220 | 57 | - | - | 277 |
| Total number bought | 234 | 1379 | 523 | 799 | 3247 |
| Total number sold fat | 445 | 946 | 466 | 749 | 2915 |
| Total number sold store | - | 469 | 42 | 30 | 541 |
| Total casualties | 2 | - | 4 | 10 | 17 |
| Total deaths | 7 | 17 | 11 | 10 | 47 |
| Total still on hand | - | 4 | - | - | 4 |
| % mortality | 1.5 | 1.2 | 2.1 | 1.3 | 1.3 |
| Average estimated deadweight (lbs per head) | 56 | 44 | 35 | 31 | 42 |
| Average sale price per lb. (incl. guarantees) | 3/4d. | 3/7 ¹ / ₄ d. | 3/11 ³ / ₄ d. | 3/9 ³ / ₄ d. | 3/7 ¹ / ₂ d. |
| Average hours labour per sheep | .2 | .7 | .8 | .3 | .6 |

[≡] This total includes the figures for 1 Half-bred cost and 1 North Country Cheviot cost not shown separately.

APPENDIX TABLE II

HOGG FATTENING -- WINTER 1956-57

AVERAGE NUMBER OF WEEKS KEPT, AVERAGE WEIGHTS OF BOUGHT FEED, HOME GROWN GRAIN AND ROOTS FED

| | <u>Suffolk cross</u> | <u>Cross</u> | <u>Cheviot</u> | <u>Blackface</u> | <u>Total[≡]</u> |
|--|----------------------|--------------|----------------|------------------|--------------------------|
| Number of costs | 2 | 9 | 2 | 4 | 19 |
| Total number of sheep | 454 | 1436 | 523 | 799 | 3524 |
| Total number of sheep sold | 445 | 1415 | 508 | 779 | 3456 |
| Average time kept (weeks) | 17 | 21 | 24 | 19 | 21 |
| Average time grazing (weeks) | 6 | 10 | 13 | 12 | 10 |
| Average time folded on roots (weeks) | 11 | 11 | 11 | 7 | 10 |
| Average weight of bought feed eaten (in lbs per head for the whole period) | 4.4 | 18.4 | 9.1 | 4.1 | 12.6 |
| Average weight of home grown grain eaten (in lbs per head for the whole period) | 24.3 | 22.5 | 19.3 | 16.2 | 22.2 |
| Average weight of all roots used (in cwts per head for the whole period) | 14.0 | 13.1 | 12.2 | 6.3 | 11.9 |

≡ This total includes the figures for 1 Half-bred cost and 1 North Country Cheviot cost not shown separately.

APPENDIX TABLE III

HOGG FATTENING -- WINTER 1956-57

ACREAGES OF ROOTS, NUMBER OF WEEKS FOLDED, NUMBER OF SHEEP PER ACRE, ETC.

| | <u>Suffolk cross</u> | <u>Cross</u> | <u>Cheviot</u> | <u>Blackface</u> | <u>Total[≡]</u> |
|--|----------------------|------------------|-----------------|------------------|--------------------------|
| Total acreage of roots folded | 12 $\frac{1}{2}$ | 31 $\frac{3}{4}$ | 7 $\frac{1}{2}$ | 8 $\frac{1}{2}$ | 65 $\frac{3}{4}$ |
| Estimated total weight of folded roots used (tons) | 311 | 827 | 250 | 237 | 1772.5 |
| Estimated weight of folded roots used per acre (tons) | 24.9 | 26.0 | 33.3 | 27.9 | 27.0 |
| Total number of sheep folded | 454 | 1253 | 523 | 693 | 3235 |
| Total number of these sold | 445 | 1232 | 508 | 673 | 3167 |
| Approximate number of weeks folded (based on number of folded sheep sold) | 11 | 13 | 11 | 8 | 11 |
| Average number of sheep to the acre (based on number of folded sheep sold) | 36 | 39 | 68 | 79 | 48 |
| Average weight of folded roots used per day (in lbs per head) | 21 | 17 | 15 | 15 | 16 |
| Assuming a yield of 20 tons to the acre to be eaten off in a 10 week period at the above rate, then the number of sheep folded to the acre would be: | 30 | 39 | 43 | 43 | 40 |

[≡] This total includes the figures for 1 Half-bred cost and 1 North Country Cheviot cost not shown separately.

APPENDIX TABLE IV

HOGG FATTENING - WINTER 1956-57

AVERAGE COST STRUCTURE PER HEAD (CALCULATED PER SHEEP SOLD)

| | <u>Suffolk cross</u> | <u>Cross</u> | <u>Cheviot</u> | <u>Blackface</u> | <u>Total[≠]</u> |
|------------------------|----------------------|-----------------|-----------------|------------------|--------------------------|
| | £. S. D. | £. S. D. | £. S. D. | £. S. D. | £. S. D. |
| Cost price | 6.16. 0. | 5. 0.10. | 4. 3.10. | 3.18. 3. | 4.18. 4. |
| Haulage to farm | 2. | 7. | 5. | 10. | 11. |
| Bought feed | 1. 6. | 5. 7. | 2.10. | 1. 3. | 3.10. |
| Miscellaneous expenses | 5. | 4. | 6. | 3. | 5. |
| Haulage to market | 5. | 8. | 7. | 6. | 6. |
| Commission etc. | 2.11. | 2. 2. | 2. 4. | 1. 6. | 2. 1. |
| Cash outlay | 5. 5. | 9. 4. | 6. 8. | 4. 4. | 7. 9. |
| Oats | 3.11. | 3. 7. | 3. 1. | 2. 7. | 3. 7. |
| Turnips | 1. 2. 6. | 1. 0. 9. | 16. 6. | 9. 1. | 18. 7. |
| Hay | - | 1. 1. | - | 1. | 5. |
| Rape | 3. | 1. 5. | - | 2. 1. | 1. 1. |
| Total home grown feed | 1. 6. 8. | 1. 6.10. | 19. 7. | 13.10. | 1. 3. 8. |
| Grazing | 7.10. | 6. 1. | 11. 4. | 6.11. | 7. 4. |
| Labour | 9. | 2.10. | 3. 0. | 1. 4. | 2. 5. |
| Overheads | 3. | 11. | 1. 0. | 5. | 10. |
| GROSS COST | 8.16.11. | 7. 6.10. | 6. 5. 5. | 5. 5. 1. | 7. 0. 4. |
| Sheep on hand | - | 5. | - | - | 2. |
| Casualties | 5. | - | 8. | 7. | 4. |
| Residual values | 2. 4. | 2. 7. | 2. 1. | 1. 4. | 2. 3. |
| Total credits | 2. 9. | 3. 0. | 2. 9. | 1.11. | 2. 9. |
| NET COST | <u>8.14. 2.</u> | <u>7. 3.10.</u> | <u>6. 2. 8.</u> | <u>5. 3. 2.</u> | <u>6.17. 7.</u> |

[≠] This total includes the figures for 1 Half-bred cost and 1 North Country Cheviot cost not shown separately.

APPENDIX TABLE V

HOGG FATTENING - WINTER 1956-57

MARGINS AND RETURNS

| | <u>Suffolk Cross</u> £. S. D. | <u>Cross</u> £. S. D. | <u>Cheviot</u> £. S. D. | <u>Blackface</u> £. S. D. | <u>Total</u> [≡] £. S. D. |
|---|----------------------------------|--------------------------|----------------------------|------------------------------|---------------------------------------|
| Average selling price (incl. guarantees) | 9. 6. 9. | 7.16.10. | 6.19. 4. | 5.17. 6. | 7.10. 5. |
| Average buying-in price | <u>6.13. 4.</u> | <u>4.19. 5.</u> | <u>4. 1. 5.</u> | <u>3.16. 3.</u> | <u>4.16. 6.</u> |
| MARGIN (excluding deaths, casualties, etc.) | <u>2.13. 5.</u> | <u>2.17. 5.</u> | <u>2.17.11.</u> | <u>2. 1. 3.</u> | <u>2.13.11.</u> |
| <u>MARGINS AND RETURNS</u> (Calculated per sheep sold) | | | | | |
| Selling price (incl. guarantees) | 9. 6. 9. | 7.16.10. | 6.19. 4. | 5.17. 6. | 7.10. 5. |
| less cost price | <u>6.16. 0.</u> | <u>5. 0.10.</u> | <u>4. 3.10.</u> | <u>3.18. 3.</u> | <u>4.18. 4.</u> |
| GROSS MARGIN | 2.10. 9. | 2.16. 0. | 2.15. 6. | 1.19. 3. | 2.12. 1. |
| less bought feed and direct cash outlays | <u>5. 5.</u> | <u>9. 4.</u> | <u>6. 8.</u> | <u>4. 4.</u> | <u>7. 9.</u> |
| CASH SURPLUS | 2. 5. 4. | 2. 6. 8. | 2. 8.10. | 1.14.11. | 2. 4. 4. |
| less home grown feed and grazing | <u>1.14. 6.</u> | <u>1.12.11.</u> | <u>1.10.11.</u> | <u>1. 0. 9.</u> | <u>1.11. 0.</u> |
| | 10.10. | 13. 9. | 17.11. | 14. 2. | 13. 4. |
| Add Credits | <u>2. 9.</u> | <u>3. 0.</u> | <u>2. 9.</u> | <u>1.11.</u> | <u>2. 9.</u> |
| | 13. 7. | 16. 9. | 1. 0. 8. | 16. 1. | 16. 1. |
| Less labour | <u>9.</u> | <u>2.10.</u> | <u>3. 0.</u> | <u>1. 4.</u> | <u>2. 5.</u> |
| | 12.10. | 13.11. | 17. 8. | 14. 9. | 13. 8. |
| Less overheads | <u>3.</u> | <u>11.</u> | <u>1. 0.</u> | <u>5.</u> | <u>10.</u> |
| SURPLUS OR, (-) DEFICIT | <u>12. 7.</u> | <u>13. 0.</u> | <u>16. 8.</u> | <u>14. 4.</u> | <u>12.10.</u> |

[≡] This total includes the figures for 1 Half-bred cost and 1 North Country Cheviot cost not shown separately.