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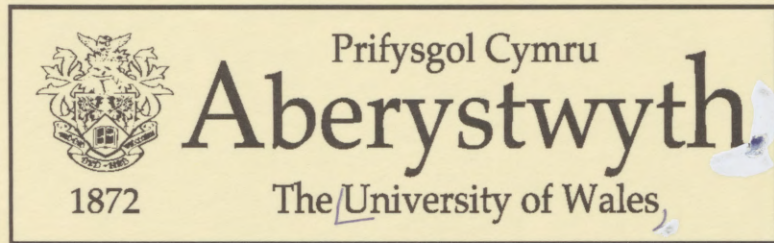
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*Cattle*

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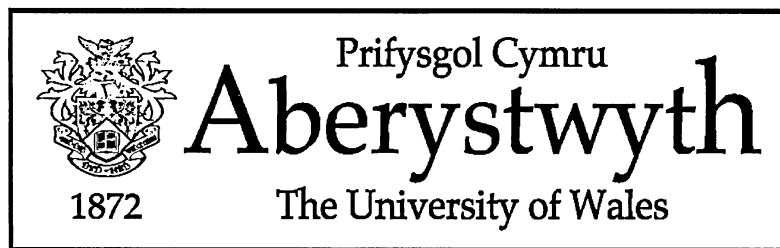
## THE ECONOMICS OF LOWLAND BEEF PRODUCTION IN ENGLAND, 2003



A report on the results of a Special Study of  
lowland beef enterprises in England

Huw Williams Nick Reeves Dylan Jones Wyn Morris

Special Studies in Agricultural Economics Report No. 62



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## Foreword

University departments of agricultural economics in England and Wales have for many years undertaken economic studies of crop and livestock enterprises, receiving financial and technical support from Defra. Since April 1978 this work has been supported in Wales by the Welsh Office, and latterly the Welsh Assembly Government.

The departments in different regions conduct joint studies of those enterprises in which they have a particular interest. This community of interest is recognised by issuing reports prepared and published by individual departments in a common series entitled *Special Studies in Agricultural Economics*. Titles of recent publications in this series are given in Appendix 1. The addresses of all departments involved in the collection of data in the Special Studies programme are given in Appendix 2.

The basic information on which this report is based was originally collected on behalf of, and was financed by, Defra and is Crown Copyright.

## Acknowledgements

This study could not have been undertaken without the co-operation of beef producers sampled throughout lowland England. Their participation and support are gratefully acknowledged.

The authors would also like to record their appreciation of the work of staff at the regional centres responsible for the collection and handling of data from the sampled farms, and also the members of the working party who were heavily involved during the planning stage. Thanks are also extended to Dr T.N. Jenkins, who was involved during the setting up of the study, and to Tony O'Regan, for his invaluable input during final editing.

## Contents

	Page
Foreword and Acknowledgements	ii
List of Figures	vi
List of Tables	vii
Summary	ix
Chapter 1. Objectives, methodology and sample	1
1.1 Background	1
1.2 Objective	1
1.3 Methodology	1
1.4 Sample recruitment	3
1.5 Sample structure	3
1.6 Weighting of results	5
1.7 Non-recruit analysis	6
Chapter 2. The UK beef sector	9
2.1 Introduction	9
2.2 Beef consumption	9
2.3 Finished cattle market prices	10
2.4 Production statistics for England	10
2.5 European Union spending on the beef veal sector	11
2.5.1 Beef Special Premium Scheme	12
2.5.2 Suckler Cow Premium	13
2.5.3 Stocking density limits	14
2.5.4 Extensification Payment Scheme	14
2.5.5 Slaughter Premium	14
2.5.6 Over Thirty Months Scheme	15
2.6 Bovine Tuberculosis	15
2.7 Foot & Mouth Disease	16
Chapter 3. Management analysis of surveyed enterprises	17
3.1 Introduction	17
3.2 Suckler herds	17
3.2.1 Farm type analysis	18
3.2.2 Breeds	18
3.2.3 Calvings and calf disposals	19
3.2.4 Suckler Cow Premium Scheme payments	21
3.2.5 Extensification Payment Scheme payments	21
3.2.6 Concentrate management	22
3.2.7 Stocking rate and fertilizer usage	24
3.2.8 Labour usage	24

3.3 Trading enterprises	25
3.3.1 Enterprises F1/F2	25
3.3.2 Enterprise F3	27
3.3.3 Enterprise F4	29
3.3.4 Enterprise F5	30
3.3.5 Enterprise S1	32
3.3.6 Enterprise S2	32
3.3.7 Organic trading enterprises	33
 Chapter 4. Economic results	 35
4.1 Introduction	35
4.2 Suckler herds: total sample results	37
4.2.1 Output	37
4.2.2 Variable costs	37
4.2.3 Fixed costs	37
4.2.4 Margins	37
4.2.5 Comments on the total sample results	38
4.3 Suckler herds: results for top and bottom quartiles	38
4.3.1 Output	39
4.3.2 Variable costs	39
4.3.3 Fixed costs	40
4.3.4 Margins	40
4.3.5 Comment on top and bottom quartile results	41
4.4 Suckler herds: regional results	41
4.4.1 Output	41
4.4.2 Variable costs	42
4.4.3 Fixed costs	42
4.4.4 Margins	42
4.4.5 Comments on regional results	43
4.5 Suckler herds: herd size results	44
4.5.1 Output	44
4.5.2 Variable costs	44
4.5.3 Fixed costs	44
4.5.4 Margins	44
4.5.5 Comment on the herd size results	45
4.6 Trading enterprises: total sample results	48
4.6.1 Output	48
4.6.2 Variable costs	49
4.6.3 Fixed costs	49
4.6.4 Margins	49
4.6.5 Comments on the total sample results	49
4.7 Trading enterprises: system results	50
4.7.1 Output	50
4.7.2 Variable costs	50
4.7.3 Fixed costs	51
4.7.4 Margins	51

4.7.5	Comments on the enterprise system results	52
4.8	Trading enterprises: regional results	52
4.8.1	Output	53
4.8.2	Variable costs	53
4.8.3	Fixed costs	53
4.8.4	Margins	54
4.8.5	Comment on the regional results	54
4.9	Trading enterprises: herd size results	55
4.9.1	Output	55
4.9.2	Variable costs	55
4.9.3	Fixed costs	56
4.9.4	Margins	56
4.9.5	Comments on the herd size results	57
4.10	Trading enterprises: results for top and bottom quartiles	57
4.10.1	Intensive cereal beef finishers and other intensive finishers: results for top and bottom quartiles	57
4.10.2	Calf-based semi-intensive finishers and store-based semi intensive finishers: results for top and bottom quartiles	58
4.10.3	Extensive finishers: results for top and bottom quartiles	59
4.10.4	Calf-based store producers and store based store producers: results for top and bottom quartiles	60
4.11	Organic farms: results for organic farms	61
4.12	General comments on the trading enterprise systems	62
Chapter 5.	Results of Attitudinal Questionnaire	97
5.1	Introduction	97
5.2	Suckler herds	97
5.2.1	Past trends in herd size	97
5.2.2	Future influences on the suckler herd	98
5.2.3	Effect of the Mid Term Review on the future of suckler herds	98
5.2.4	Perceived premium – suckler herds	99
5.3	Trading enterprises	99
5.3.1	Past trends in enterprise size	99
5.3.2	Choice of current system	101
5.3.3	Future influences on the trading enterprise	101
5.3.4	Effect of the Mid Term Review on the future of trading enterprises	102
5.3.5	Perceived premium – trading enterprises	102
Chapter 6.	Conclusion	109
Appendix 1.	Recent titles in the series Special Studies in Agricultural Economics	111
Appendix 2.	Centres involved in Special Studies	119
Bibliography		121

## List of Figures

	Page
Figure 2.1 EU per capita beef and veal consumption	9
Figure 2.2 Monthly average finished cattle prices in England and Wales in 2003 – pence per kg liveweight	10
Figure 3.1 Relative proportions of bulls, steers and heifers – opening valuation	26
Figure 4.1 Suckler herd fixed costs by quartile - £ per head	40
Figure 4.2 Suckler herd fixed costs by herd size - £ per head	45
Figure 4.3(a) Main suckler herd results by herd size	45
Figure 4.3(b) Main suckler herd results by region	46
Figure 4.3(c) Main suckler herd results by quartile	46
Figure 4.4 Trend of net margin versus herd size	47



## List of Tables

	Page	
Table 1.1	System description	2
Table 1.2	System size groups	2
Table 1.3 a	Sample structure - trading enterprises - enterprise size 20-49 cattle	4
Table 1.3 b	Sample structure - trading enterprises - enterprise size 50-99 cattle	4
Table 1.3 c	Sample structure - trading enterprises - enterprise size >100 cattle	4
Table 1.3 d	Sample structure - trading enterprises - by region	5
Table 1.3 e	Sample structure - trading enterprises – by size group	5
Table 1.4	Sample structure - suckler herds - by region and herd size	5
Table 1.5	Number of non-recruits by category and region (percentages)	7
Table 1.6	Number of non-recruits by reason and region (percentages)	7
Table 2.1	Total cattle numbers in England 1997, 2000 and 2003	11
Table 2.2	FEOGA expenditure in the beef and veal sector	12
Table 3.1	Farm type analysis of suckler herd distribution – numbers	17
Table 3.2	Comparison of cow breeds at opening valuation (percentages)	19
Table 3.3	Disposals of calves from the suckler herd (percentages)	20
Table 3.4	Suckler Cow Premium and Extensification Payment Scheme	22
Table 3.5	Concentrate usage per cow (including feed for pre weaned calves) - kilogrammes per head	23
Table 3.6	Farm type versus beef enterprise type – number of enterprises	25
Table 3.7	Extensification Payment Scheme claims – percentages	26
Table 3.8	Concentrate usage per kg throughput (kilogrammes)	27
Table 3.9	Average daily liveweight gain in kilogrammes by enterprise type	27
Table 3.10	Additions to the trading enterprises – number (percentages)	28
Table 3.11	Source of additions to trading enterprises - percentages	29
Table 3.12	Calculated stocking rate – LU per forage hectare	30
Table 3.13	Breed type of trading enterprise opening valuation animals – percentages	31
Table 3.14	Age of animals at addition to trading enterprises – percentages	31
Table 4.1	Comparative stocking rate 1996 vs 2003 cows/forage ha	39
Table 4.2	Ranking of trading enterprises by net margin	52
Table 4.3	Outputs, costs and margins for suckler herds – all farms & North region	63
Table 4.4	Outputs, costs and margins for suckler herds – West region & East region	64
Table 4.5	Outputs, costs and margins for suckler herds – top quartile & bottom quartile	65
Table 4.6	Outputs, costs and margins for suckler herds – 10-24 cows and 25-49 cows	66
Table 4.7	Outputs, costs and margins for suckler herds – over 50 cows	67
Table 4.8	Outputs, costs and margins for trading enterprises – all enterprises	68
Table 4.9	Outputs, costs and margins for trading enterprises – system S1	69
Table 4.10	Outputs, costs and margins for trading enterprises – system S2	70
Table 4.11	Outputs, costs and margins for trading enterprises – systems F1 and F2	71
Table 4.12	Outputs, costs and margins for trading enterprises – system F3	72
Table 4.13	Outputs, costs and margins for trading enterprises – system F4	73
Table 4.14	Outputs, costs and margins for trading enterprises – system F5	74

Table 4.15	Outputs, costs and margins for trading enterprises – organic systems	75
Table 4.16	Outputs, costs and margins for trading enterprises – North region	76
Table 4.17	Outputs, costs and margins for trading enterprises – West region	77
Table 4.18	Outputs, costs and margins for trading enterprises – East region	78
Table 4.19	Outputs, costs and margins for trading enterprises – 20-49 cattle	79
Table 4.20	Outputs, costs and margins for trading enterprises – 50-99 cattle	80
Table 4.21	Outputs, costs and margins for trading enterprises – over 100 cattle	81
Table 4.22	Outputs, costs and margins for trading enterprises – system F1/F2 top quartile	82
Table 4.23	Outputs, costs and margins for trading enterprises – system F1/F2 bottom quartile	83
Table 4.24	Outputs, costs and margins for trading enterprises – system F3/F4 top quartile	84
Table 4.25	Outputs, costs and margins for trading enterprises – system F3/F4 bottom quartile	85
Table 4.26	Outputs, costs and margins for trading enterprises – system F5 top quartile	86
Table 4.27	Outputs, costs and margins for trading enterprises – system F5 bottom quartile	87
Table 4.28	Outputs, costs and margins for trading enterprises – system S1/S2 top quartile	88
Table 4.29	Outputs, costs and margins for trading enterprises – system S1/S2 bottom quartile	89
Table 4.30	Analysis of calf output from suckler herds – by region and size	90
Table 4.31	Analysis of calf output from suckler herds – by size (continued) and quartile	91
Table 4.32	Analysis of trading enterprise throughput – by enterprise type	92
Table 4.33	Analysis of trading enterprise throughput – by enterprise type (continued) and quartiles	93
Table 4.34	Analysis of trading enterprise throughput – by quartiles (continued)	94
Table 4.35	Analysis of trading enterprise throughput – by size and organic enterprises	95
Table 4.36	Analysis of trading enterprise throughput – by region and overall	96
Table 5.1	Comparison of suckler herd size – 1998 vs 2003	97
Table 5.2	Factors affecting the future direction of the suckler herd (% of farmers citing as main reason)	100
Table 5.3	Comparison of trading enterprise size – 1998 vs 2003	101
Table 5.4	Attitudinal questionnaire results - suckler herd sample	103
Table 5.5	Attitudinal questionnaire results - suckler herd sample	104
Table 5.6	Attitudinal questionnaire results – trading enterprise sample by size	105
Table 5.7	Attitudinal questionnaire results – trading enterprise sample by region	106
Table 5.8	Attitudinal questionnaire results – trading enterprise sample by enterprise type	107

## SUMMARY

1. In the lowland areas of England, beef is the output of a complex range of production systems. Beef enterprises can acquire animals from beef suckler herds or from dairy herds; stock can be born on the farm where it is reared or finished, or it can be purchased from other farms; animals can be purchased as calves or as older store cattle; bulls, steers or heifers can be utilised; beef animals can be sold as stores of varying ages, or they can be finished at ages ranging from under twelve months to thirty months.

2. The total number of cattle in England reduced from 6,326,000 in 1997 to 5,709,000 in 2003. This is equivalent to a 9.8% decrease. The beef breeding herd was at its lowest in 2001, when there were approximately 666,000 suckler cows in England

3. Beef and veal consumption in the EU was 19.6kg per capita during 2002; this compares with the UK average of 19.7kg. The French consumed a total of 27.7kg per capita.

4. The objectives of this Special Study of lowland beef production were:

(a) to provide up-to-date information on the economics of lowland beef production in England in order to inform policy decisions which may affect the enterprise, and (b) to provide data for the construction of Standard Gross Margins for use in farm classification.

5. The beef enterprises in the sample are grouped into eight systems defined according to the source of calves or stores entering the production process and the age and type of animal finally sold. For each system, information is provided on such matters as regional distribution, farm type, purchase and sale weights and prices, methods and timing of purchase and sale, feed input, and production subsidy receipts. Financial results are presented for each system on a full economic cost basis.

6. Financial results for suckler herds are expressed on a 'per cow' and on a 'per forage hectare' basis, while those for trading enterprise systems are expressed on a 'per forage hectare' basis and on a 'per kilogramme throughput' basis. Some measure of comparability is therefore available between enterprises operating different systems.

7. It is important to note that the financial results are computed on a full economic cost basis. Hence, as well as recorded expenditures, some imputed cost items are also included, *viz.* the value of unpaid labour attributed to lowland beef enterprises, a rental value for the owner occupied land used by the enterprises, and a depreciation charge on the buildings and machinery used by the enterprises. Further, to arrive at margins, a proportion of farms' fixed costs are allocated to lowland beef enterprises, and net margins require the deduction of a share of overhead costs (ie. costs, such as general maintenance costs or lost time, which are unavoidably incurred by farms but which cannot be attributed to any particular enterprise).

8. This report presents the results of a survey of 322 lowland beef enterprises covering production during 2003. The sample includes a range of beef enterprise systems found in lowland England<sup>1</sup>.

### *Suckler Herds*

9. The overall results for the sample of 90 suckler herds show substantial negative average net margins: -£106 per cow (-£126 per forage hectare). This is a significant reduction in performance from the earlier lowland beef Special Study which found net margins of -£32 per cow (-£51 per forage hectare) in 1996 and -£41 per cow (-£65 per forage hectare) in 1995.

10. Analysis of the top and bottom quartiles<sup>2</sup> indicates considerable variation in results between individual herds. The top quartile herds in 2003 achieved an overall net margin per cow of £55 (£77 per forage hectare) - this compared with an overall net margin of -£339 per cow (-£463 per hectare) for the bottom quartile.

---

<sup>1</sup> Herds in Wales and those specialising in pedigree breeding stock were excluded from the sample.

<sup>2</sup> The top and bottom quartiles are defined in terms of the net margin per forage hectare achieved by each enterprise in 2003.

11. The survey also revealed substantial regional differences in net margin per cow. Results ranged from an average of -£27 per cow in the West of England to -£218 per cow in the East.

12. Overall net margins were considerably lower in the small herd size group than in the large herd size group. Herds with fewer than 25 cows achieved an average net margin per cow of -£273 in 2003, compared with an average for herds with 50 cows or more of -£76 per cow.

13. Over 37% of the value of output was derived from the Suckler Cow Premium (SCP) scheme in 2003 compared with an equivalent figure of more than 40% in 1996 and less than 30% in 1995.

#### *Trading Enterprises*

14. A total of 232 trading enterprises are included in the sample, with a total throughput of 5618 tonnes of beef (liveweight equivalent). Seven systems were identified; two producing store cattle and five producing finished animals.

15. Of the average output per enterprise in 2003 (129 pence per kg throughput), 65% was derived from cattle sales and 35% from subsidy payments. In 1996, of the average output per enterprise (116 pence per kg throughput), 73% was derived from cattle sales and 27% from Beef Special Premium (BSP) payments. In 1995 the equivalent figures were 134p/kg, 82% and 18% respectively.

16. The overall net margin across all trading enterprises was negative at -8.97p/kg throughput in 2003. This compares to -32.7p/kg throughput in 1996 and -7.1p/kg throughput in 1995. Wide variations were recorded between and within trading systems. In 2003, only intensive beef finishing systems (F1&F2) and calf-based semi intensive finishing systems (F3) showed a positive average net margin. In 1996, average net margins for all systems were negative. In 1995, only intensive barley beef

finishing systems (F1) and store-based semi intensive finishing systems (F4) showed a positive average net margin.

17. Gross margins in 2003 varied between 45.8p/kg throughput for intensive finishing systems (F1&F2) and 80.5p/kg throughput for store-based store producers (S2).

18. Regional analysis of trading enterprises reveals some variation in average performance. Gross margins ranged from an average of 66p/kg throughput in East England to 56p/kg throughput in the North.

19. Variations in economic performance were also apparent by size of enterprise. In 2003 the lowest net margins overall were recorded for the smallest enterprises (those with less than 49 cattle). Similar net margins were found in the medium and largest enterprises.

#### *Results of the attitudinal questionnaire – suckler herds*

20. During the final data collection visit in early 2004, farmers were asked of their perceptions of the future direction of their own beef enterprise and of any changes in their enterprise since 1998.

21. In 1998 the average size of the suckler herd within the sample was 46. By 2003, this had risen by 6% to 49. This overall change masked individual changes of a 26% increase for small herds, a 17% increase for medium sized herds and a 0.5% decline in the size of large herds. On a regional basis herd size changes were a 35% increase in the North but an 11% decrease in the size of herds in the East.

22. With reference to the factors that were most likely to influence future plans for the suckler herds, 35% said profitability, 28% cited personal circumstances and 22% said they would be influenced by changes in the Common Agricultural Policy (CAP). On a quartile basis profitability was the key factor, at 46%, for the top quartile but

scored only 17% for the bottom quartile (ranking third in this group behind personal circumstances at 35% and changes to the CAP at 26%).

23. In response to the Mid Term Review a total of 13% believed they would increase their herd size by an average 39% over the next five years. A further 12% thought that they would decrease the herd size by 39% over the same period, whilst 44% believed there would be no change in enterprise size. A total of 6% were intending to cease production and 29% were uncertain as to future intentions.

24. Farmers who sold calves at weaning were asked if they believed that they received a premium for their suckled calves relative to average market prices. Of these farms 11% believed they gained a premium from being farm assured and 47% perceived a premium due to breed.

#### *Results of the attitudinal questionnaire – trading enterprises*

25. The 232 farmers in the trading enterprise survey were also asked their perceptions of the future of their beef enterprise. In 1998 the average number of animals within trading enterprises was almost 83; by 2003 this had increased by 11%. Within this overall change there was a 32% decline in numbers in the smallest size group, a 7% increase in the middle sized group whilst the largest size group had a 30% increase in stock numbers between 1998 and 2003. Changes in enterprise size on a regional basis found a decrease in size of 24% in the East, and significant increases the North and West of 29% and 38% respectively.

26. The main factors that influenced the choice of enterprise in 2003 were profitability, 37% of responses, and enterprise fit into the farming system, 27%. There was no significant variation between sizes, regions or enterprise types. Factors most likely to influence enterprise plans over the next five years were profitability, with 39% of responses, followed by changes to the CAP, 29%. Responses were similar across the enterprise types, sizes and regions.

27. In response to the Mid Term Review 34% of respondents were uncertain as to the future direction of their enterprise over the next five years, 38% expected no change to numbers, 10% would increase numbers and 14% anticipated a decrease.

28. Of the trading enterprises surveyed, 46% perceived that they received no price premium on their cattle. Those who believed they did receive a premium thought they received it due to the breed, 28%, being members of a farm assurance scheme, 19%, and because it was their buyers' (supermarket) bonus, 6%. The majority, 80%, of organic farmers perceived a premium because of their organic status.



## **CHAPTER 1: Objectives, methodology and sample**

### **1.1 Background**

The last study of the economics of lowland beef production in the Agricultural Economics Commissioned Work Research Programme was Special Study No 36, The Economics of Lowland Beef Production, 1995 and 1996 by Tim Jenkins, Euryon Jones, Iain McDougall and Huw Williams, published in May 1998. Since then, there have been significant challenges to the beef sector including the continuing effect of the BSE crisis and the outbreak of foot and mouth in 2001. There have also been changes to the support system: the previous limit of 90 claims per year has been removed on the Beef Special Premium Scheme, and Suckler Cow Premium quota entitlements have been subject to a 2.5% cutback and is now paid on maiden heifers. Given these developments in the support mechanism, a new study was needed.

### **1.2 Objective**

The survey objectives were defined at the outset as the provision of up-to-date information on the economics of lowland beef production in order to inform policy decisions which may affect the enterprise, and for the construction of Standard Gross Margins for use in farm classification as required under Article 8 paragraph 3 of Council Regulation (EEC) No. 571/88 of 29 February 1988.

### **1.3 Methodology**

The information collected in order to meet the above objectives covered physical and financial details of the output, variable costs and fixed costs for the production systems listed in Table 1.1. Data was collected on:

- the breeding record, calving and mortality
- purchases, sales and retention of calves, stores, finished and breeding cattle by weights and by value
- Beef Special Premium receipts and Suckler Cow Premium quotas and receipts
- separately itemised variable costs
- use of labour, machinery and equipment
- costs of grazing, forage crop production and grass conservation.

The planning of the study was undertaken by a working group consisting of representatives from Defra's Farm and Animal Health Economics (FAHE) Division (formely: Economics (Farm Business) Division) and from the University of Wales, Aberystwyth, Newcastle University and Askham Bryan College.

The survey work was undertaken by investigational staff from universities and colleges listed in Appendix 2, and involved personal interviews with the cooperating farmers during the course of visits made in late 2002, throughout 2003 and early 2004. The questionnaire and detailed methodology used for the survey were heavily based on those developed for the earlier beef and lowland sheep Special Studies.

**Table 1.1 System description**

<i>System code</i>	<i>System description</i>
F1	Intensive cereal beef finishers, generally finishing at less than 12 months old (but excluding veal producers)
F2	Other intensive finishers, generally finishing at between 12 and 16 months old
F3	Calf-based semi-intensive finishers, generally purchasing or transferring in calves at less than 3 months old and finishing at between 17 and 22 months old
F4	Store-based semi-intensive finishers, generally purchasing calves/stores at more than 3 months old and finishing at between 17 and 22 months old
S1	Calf-based store producers, purchasing or transferring in calves at less than 3 months old and selling store cattle
S2	Store-based store producers, purchasing calves/stores at more than 3 months old and selling store cattle
F5	Extensive finishers, generally finishing at more than 22 months old
H1	Suckler herds

The sample was further split into size groups as shown in Table 1.2

**Table 1.2 System size groups**

Size group	Suckler herd	Trading enterprise
1	10-24 cows	20-49 animals
2	25-49 cows	50-99 animals
3	50+ cows	100+ animals

## **1.4 Sample recruitment**

Beef enterprises were classified according to the system description as detailed in Table 1.1 and Table 1.2

The target sample size was fixed at 300 herds in England - either with at least 10 suckler cows or with at least 20 trading cattle. The target sample was subdivided by region (East, North and West England), and recruiting lists of holdings with beef cows (for the suckler herd sample) and of holdings with other beef cattle (for the trading enterprises sample) were made available from the 2001 June Census.

A holding was recruited only if its beef enterprise (or a separately costable part of its beef enterprise) was intended by the farmer to fall into one of the production systems listed in Table 1.1. These systems are largely the same as the systems studied for the 1995/1996 survey, allowing some comparison between years, although no attempt has been made to index link costs and output. Holdings with more than one of the listed production systems could be included provided that the systems were distinct and could practicably be costed separately.

This focus on farmers' intentions with regard to a limited number of pre-defined systems has clear limitations for two reasons. Firstly, it is probable that many beef farms do not operate a clear system in the sense defined - these farms would then have been excluded from the survey simply because they did not "fit" the structure imposed on the lowland beef sector or because it would have proved unduly difficult to cost those parts of their beef enterprises which did fit. Secondly, the focus on systems runs the danger of imposing a structure on the lowland beef sector which may or may not be warranted and whose relevance in the real world of beef production is difficult to establish. However, in these times of decoupling and changes in the beef industry, it is important that data is provided that indicates the relative profit of various enterprises.

## **1.5 Sample structure**

Tabulated in Table 1.3 and 1.4 are the structure of the final sample. For reasons of confidentiality, no aggregated or average results can be disclosed for samples of less than 5 enterprises. Enterprises can be classified by size, region and, in the case of the trading enterprise sample by enterprise type also.

**Table 1.3 Sample structure by system, region and enterprise size – trading enterprises**

**1.3 (a) Enterprise size: 20-49 cattle**

(No. of enterprises)	North England	West England	East England	Total
F1	0	3	0	3
F2	4	3	6	13
F3	1	2	1	4
F4	4	3	4	11
F5	2	10	8	20
S1	3	5	1	9
S2	10	10	8	28
All systems	24	36	28	88

**1.3 (b) Enterprise size: 50-99 cattle**

(No. of enterprises)	North England	West England	East England	Total
F1	0	0	0	0
F2	6	8	4	18
F3	1	0	1	2
F4	1	1	3	5
F5	5	11	7	23
S1	3	4	1	8
S2	1	3	4	8
All systems	17	27	20	64

**1.3 (c) Enterprise size: =>100 cattle**

(No. of enterprises)	North England	West England	East England	Total
F1	0	0	0	0
F2	3	4	5	12
F3	2	4	1	7
F4	2	2	4	8
F5	9	21	9	39
S1	1	7	3	11
S2	1	2	0	3
All systems	18	40	22	80

### 1.3 (d) Trading enterprises - by region

(No. of enterprises)	North England	West England	East England	Total
F1	0	3	0	3
F2	13	15	15	43
F3	4	6	3	13
F4	7	6	11	24
F5	16	42	24	82
S1	7	16	5	28
S2	12	15	12	39
All systems	59	103	70	232

### 1.3 (e) Trading enterprises – by size group

(No. of enterprises)	20-49 animals	50-99 animals	Over 100 animals	Total
F1	3	0	0	3
F2	13	18	12	43
F3	4	2	7	13
F4	11	5	8	24
F5	20	23	39	82
S1	9	8	11	28
S2	28	8	3	39
All systems	88	64	80	232

**Table 1.4. Sample structure – suckler herds by region and herd size**

(No. of enterprises)	North England	West England	East England	Total
10-24 cows	8	6	8	22
25-49 cows	7	19	11	37
=>50 cows	11	9	11	31
Total	26	34	30	90

### 1.6 Weighting of Results

In the case of most Special Studies of individual farm enterprises, the structure of the population from which the sample is taken is known from the June Census. Thus, for example, the national results from the 1999 Lowland Sheep Survey could be weighted by relating the numbers of ewes in the sample to the number of ewes recorded in the Census by flock size group and by region. In the case of the current survey, however, such a straightforward weighting procedure is not available since the extent of beef

trading systems by which the sample has been stratified is not known for the wider population.

Consequently, with regard to weighting of the results, two potential options then remain. The first is not to attempt any weighting at all (the option chosen for previous Lowland Beef Special Studies). The advantages are simplicity and clarity; the disadvantages are that grouped results have to be viewed with caution since they depend on the "accidental" structure of the sample and cannot strictly be said to represent the population as a whole. The second option is to attempt a weighting according to the systems structure of the lowland beef farms in the Farm Business Survey (FBS) sample. The main problem with this approach is that the FBS sample itself was not selected to be representative of the lowland beef sector and may not therefore be so.

For the purposes of this report, the first option has been chosen. Therefore, neither the trading sample nor the suckler sample has been weighted. Where appropriate, results are broken down by region and by herd size in order to overcome the disadvantages of this procedure.

### **1.7 Non-recruit analysis**

The 322 enterprises recruited for the sample were found on 241 holdings.

A total of 1121 farm holdings were originally selected as potentially suitable for the sample, but 880 of those holdings were recorded as non-recruits. Therefore, the overall recruiting success rate was 21.5%.

Out of the original 1121 farm holdings, 208 (18.6% of the total) were not contacted by investigating centres - 41 of these were intentionally not contacted for various reasons, and 167 could not be contacted (Table 1.5).

A further 102 holdings (9.1%) were deemed unsuitable for inclusion in the survey, the highest proportion of which were in the East region where 17.0% of the total holdings originally selected were deemed unsuitable.

The majority of non-recruits (47.1%) declined at the initial contact stage, with a greater proportion declining at initial contact in the West region (55.5%), compared to both the East (37.9%) and North (43.1%) regions respectively. A further 42 holdings 3.7% of non-recruits initially agreed but withdrew.

**Table 1.5 Number of non-recruits by category and region (percentages)**

	Total	West	East	North
Chose not to contact	41 (3.7)	16 (3.2)	20 (6.1)	5 (1.7)
Unable to contact	167 (14.9)	60 (12.0)	39 (11.8)	68 (23.5)
Declined at initial contact	528 (47.1)	278 (55.5)	125 (37.9)	125 (43.1)
Deemed unsuitable	102 (9.1)	25 (5.0)	56 (17.0)	21 (7.2)
Agreed, but withdrew	42 (3.7)	20 (4.0)	11 (3.3)	11 (3.8)
Holdings in the final sample	241 (21.5)	102 (20.3)	79 (23.9)	60 (20.7)
<b>TOTAL</b>	<b>1121</b>	<b>501</b>	<b>330</b>	<b>290</b>

Of the farms not taking part in the survey (24.3%) had no beef enterprise on the farm, and a further 1.4% of holdings were within or mainly within Less Favoured Areas (Table 1.6).

**Table 1.6 Number of non-recruits by reason and region (percentages)**

	Total	West	East	North
Farmer sufficiently burdened by other studies	39 (4.4)	11 (2.8)	22 (8.8)	6 (2.6)
Unable to contact decision maker	172 (19.6)	68 (17.0)	39 (15.5)	65 (28.3)
Farmer too busy	116 (13.2)	44 (11.0)	39 (15.5)	33 (14.3)
Farmer not interested	153 (17.4)	71 (17.8)	42 (16.7)	40 (17.4)
Unwilling to supply data to third party	9 (1.0)	6 (1.5)	1 (0.4)	2 (0.9)
LFA farm	12 (1.4)	4 (1.0)	0 (0.0)	8 (3.5)
No beef enterprise on farm	214 (24.3)	107 (26.8)	65 (25.9)	42 (18.3)
Intends to cease beef production during year	39 (4.4)	24 (6.0)	8 (3.2)	7 (3.0)
Beef enterprise unsuitable for survey	80 (9.1)	44 (11.0)	22 (8.8)	14 (6.1)
Other reason	46 (5.2)	20 (5.0)	13 (5.2)	13 (5.7)
<b>TOTAL</b>	<b>880</b>	<b>399</b>	<b>251</b>	<b>230</b>

Excluding holdings with no beef enterprise, the most frequently occurring reason for the non-recruitment of farms was failure to contact the decision maker (19.6%), followed by the fact that the farmer was not interested (17.4%), and by farmers considering themselves to be too busy to participate (13.2% of non-recruits). A proportion of farms were recorded to be sufficiently burdened by other studies (4.4%), with a relatively greater number found in the East region (8.8%). A further 9.1% of non-recruits had a beef enterprise which was unsuitable for the survey, and 4.4% intended to cease beef production during 2003. Other reasons accounted for 5.2% of non-recruits.

Of 519 farms deemed suitable for inclusion in the survey, the 241 farms who agreed to participate and supplied the required data resulted in a survey response rate of 46%.



## CHAPTER 2: The UK beef sector

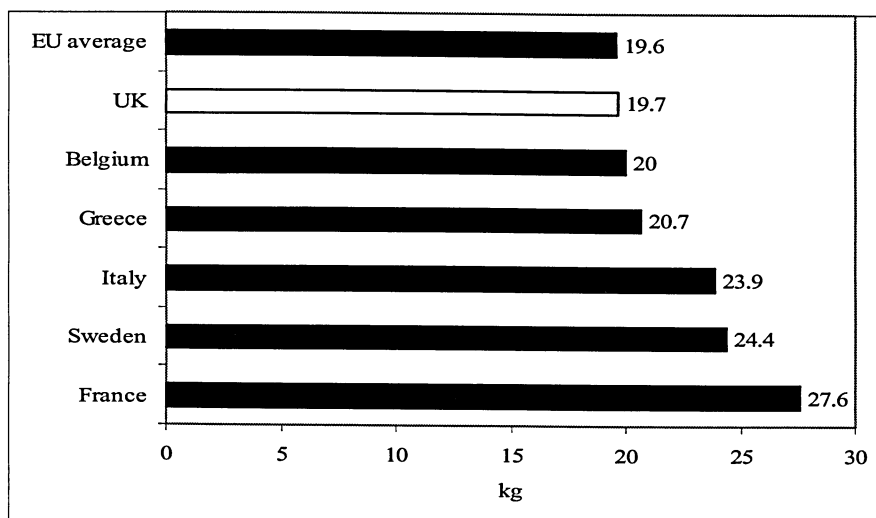
### 2.1 Introduction

The production of beef has always been a major constituent of agriculture in the United Kingdom. Traditionally, beef animals were reared in upland areas of the North and West of Britain and sold on for finishing in lowland areas. Today, the beef industry, although retaining elements of the traditional links between upland rearing and lowland finishing, has a more complex structure with a range of different rearing and finishing methods found in all areas of the country. A further major change is that, over the last quarter of a century, traditional British beef breeds such as the Hereford, the Welsh Black and the Aberdeen Angus have lost ground to larger and faster growing continental breeds such as the Charolais and the Limousin.

### 2.2 Beef consumption

Figure 2.1 highlights that beef and veal consumption in the EU was 19.6kg per capita during 2002; this compares with the UK average of 19.7kg. Significant differences exist between member states; the French consumed a total of 27.6kg per capita in 2002, which is 41% more than the EU average.

Figure 2.1 EU per capita beef and veal consumption

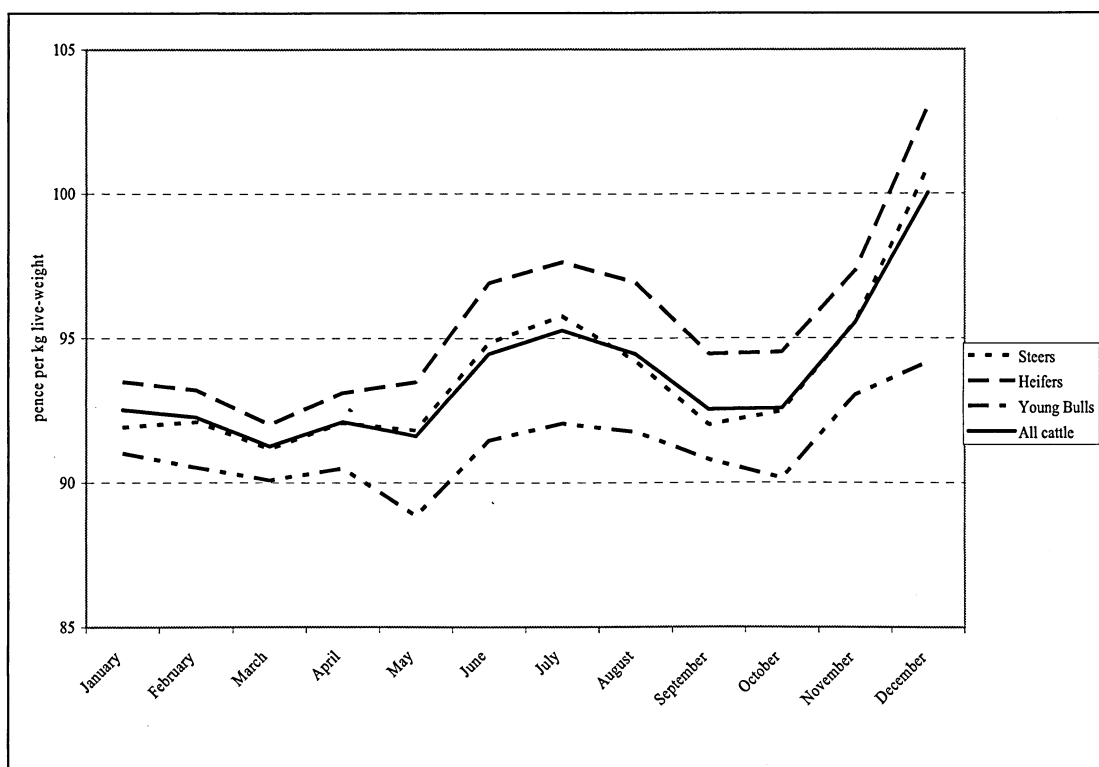


Source: MLC (2003)

### 2.3 Finished cattle market prices

Figure 2.2 shows average prices for finished cattle in pence per kg liveweight for 2003. Monthly averages were calculated using data collected by the Meat and Livestock Commission (MLC) on a total throughput of 303,257 cattle from selected livestock markets in England and Wales. The overall average market price for all finished cattle sold in the MLC sample was 93.7p/kg for the 2003 year. Heifers sold at the highest average pence per kg price in the sample at 95.4p/kg, whilst young bulls sold for the lowest overall average at 91.3p/kg.

**Figure 2.2 Monthly average finished cattle prices in England and Wales in 2003 pence per kg liveweight**



Source: MLC (2004a)

### 2.4 Production statistics for England

The total number of cattle and calves in England reduced by approximately 9.8% between December 1997 and December 2003 (Table 2.1). Although numbers in the majority of cattle categories declined during this period, there was a significant

reduction of 16.8% in the dairy breeding herd, and 14.1% in the beef breeding herd. The beef breeding herd was at its lowest numbers in 2001, (the year of the Foot and Mouth Disease outbreak) when there were approximately 666,000 suckler cows in England. Contrary to the trend of other cattle groups, there was an overall increase in the number of beef heifers in calf, with a particularly sharp increase of 37.5% between 2000 and 2003.

**Table 2.1 Total cattle numbers in England 1997, 2000 and 2003**

	December 1997	December 2000	December 2003
	('000 head)	('000 head)	('000 head)
<b>TOTAL CATTLE AND CALVES</b>	6326	6067	5709
<b>Total breeding herd</b>	2533	2334	2129
Dairy herd	1726	1581	1436
<i>Beef herd</i>	806	753	692
<b>Total heifers in calf (first calf)</b>	443	403	391
Dairy – total	308	299	248
<i>Beef – total</i>	135	104	143
- <i>two years old and over</i>	89	71	94
- <i>under two years old</i>	46	33	49
<b>Total bulls for service</b>	44	43	46
<b>Total other cattle and calves</b>	3306	3286	3143
Two years old and over – total	253	336	302
- <i>male (excluding service bulls)</i>	112	158	130
- <i>female: intended for slaughter</i>	73	81	79
for dairy herd replacements	47	65	47
for beef herd replacements	22	32	46
One year old and over – total	1354	1398	1319
- <i>male (excluding bulls for service)</i>	488	565	582
- <i>female: intended for slaughter</i>	394	395	362
for dairy herd replacements	355	341	270
for beef herd replacements	117	97	105
Other cattle and calves under 1 year	1699	1552	1523
- Intended for slaughter as calves	15	35	46
- Other female calves	974	807	768
- Other male calves	709	710	710

Source: DEFRA (2004a); MAFF (2001); MAFF (1998)

## 2.5 European Union spending on the beef and veal sector.

EU expenditure on the beef and veal sector, summarised in Table 2.2, is funded as part of the Common Agricultural Policy by FEOGA (European Agricultural

Guarantee and Guidance Fund). Spending on beef and veal amounted to 7,072 million Euro in 2002 or 15.9% of total guarantee expenditure<sup>1</sup>.

**Table 2.2 FEOGA expenditure in the beef and veal sector**

	2002 (outturn)
	Million Euro
Export refunds	331
Intervention storage	104
Suckler Cow Premium (SCP)	1888
Additional SCP	71
Beef Special Premium	1748
Slaughter Premium	1025
Extensification Premium	943
Exceptional support measures	242
Compulsory slaughter programme	68
Other	652
Total	7072
Total as % of guarantee expenditure	15.90%

Source: Official Journal L53 European Commission (2004)

### 2.5.1 Beef Special Premium Scheme

The Beef Special Premium Scheme (BSP) was introduced in the UK in 1989, replacing the Beef Variable Premium Scheme. Steers and young bulls are eligible for BSP but heifers do not qualify. BSP can be claimed twice on steers, but only one claim can be made on bulls. The first payment is made on steers between 9 and 22 months of age, and the second payment is made on animals at 22 months of age and over. Bulls are eligible for payment from 9 months of age. Animals claimed must be retained for 2 months from the day after the premium application was submitted. The age of the animal at the end of the retention period determines eligibility; therefore applications can be made for steers between 7 and 20 months for the first payment, and at least 20 months of age for the second payment.

<sup>1</sup> Official Journal L53 European Commission (2004)

Payment rates under the 2003 BSP scheme were €150 for steers and €210 for bulls, before modulation of 3.5%. Advance payments are made from mid-October of the scheme year, with the balance paid from the following April.

Each EU member state is subject to a regional ceiling on the number of claims which can be made; for 2003 the UK reference herd was 1,461,978 head, which included a temporary additional 100,000 head due to the ban on calf exports. If the total number of first premium and bull claims exceeds the regional reference herd, claims are scaled back proportionately<sup>2</sup>. In the 2003 scheme year the regional ceiling was exceeded in the UK. As a result the number of eligible animals in the 2003 BSP scheme was scaled back by 6.5%. This scale-back was made when the balance of the payments were paid. Producers claiming on 30 animals or less were exempt from the scale-back<sup>3</sup>.

### **2.5.2 Suckler Cow Premium**

The Suckler Cow Premium Scheme (SCP) was introduced in 1980 to increase the returns of beef producers without supplementing dairy farm incomes. Eligible cows must be of a meat breed or cross, and used for rearing calves for meat. Claimed animals must be retained for 6 months from the date of application. Small milk producers may claim SCP on their beef cows provided they hold less than 174,780 litres of milk quota. In 2003, there was a requirement that heifers should comprise a minimum of 5% up to a maximum of 40% of the SCP claim, unless the total animals in the claim was for less than 14 animals.

Payment rates for the 2003 scheme year consisted of €200 in premium and an additional maximum of €50 from national funds (Beef National Envelope). Advance payments of 80% are paid in the autumn followed by the balance the following spring.

The number of SCP claims made is limited by the amount of quota available. SCP rights can be transferred, (purchased or sold) with or without land. When transferring without land, up to 15% of the quota must be surrendered to the national reserve. Likewise, producers not using 90% of their rights must transfer the unused portion to the national reserve. These rights are re-distributed to new entrants, young farmers

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<sup>2</sup> MLC (2004b)

<sup>3</sup> HCC (2004)

and other priority producers. Quota can also be traded between producers, temporarily, by lease for whole calendar years only. In these cases no transfer of land is required.

### **2.5.3 Stocking density limits**

Suckler Cow Premium and Beef Special Premium schemes are subject to a maximum stocking density applied to all producers with over 15 livestock units (LU). For the 2003 scheme year, the limit was set at 1.8 LU per forage hectare. Male cattle, suckler cows and heifers for which SCP has been claimed and sheep for which Sheep Annual Premium (SAP) has been claimed are taken into account, as well as milk quota held. Suckler cows and other cattle over 24 months of age, and the notional number of dairy cows required to produce milk up to the quota (attributed to holding on the 31<sup>st</sup> March in the scheme year), represent 1 LU, male cattle and heifers between 6-24 months old 0.6 LU and sheep 0.15 LU.

### **2.5.4 Extensification Payment Scheme**

Producers receiving BSP and/or SCP may also apply to the Extensification Payment Scheme (EPS). To qualify for the additional premium, paid on BSP and SCP eligible animals, the real stocking density level must be maintained below 1.4 LU/ha for the highest rate of payment (€80 before modulation of 3.5% in 2003), or between 1.4 LU/ha and 1.8 LU/ha for a lower rate of payment (€40). The stocking density used for EPS is calculated differently to the stocking density limits for BSP and SCP in that all cattle aged six months and over are taken into account, rather than the number for which premium has been claimed, as well as the number of SAP claims. Forage area for EPS must consist of a minimum of 50% pasture land<sup>4</sup>.

### **2.5.5 Slaughter Premium**

Slaughter Premium was introduced in 2000. Bulls, steers, cows and heifers over 8 months old are eligible, as are calves between 1 month and 7 months of age and over

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<sup>4</sup> MLC (2004b)

160kg carcass weight. Animals must have been held by the producer for at least 2 months ending less than 1 month before slaughter. Adult cattle qualify for €80/hd and calves €50/hd. Slaughter Premium claims are subject to a national ceiling, which for adult cattle in the UK in 2003 was 3,266,212 head.

### **2.5.6 Over Thirty Months Scheme**

In 1996, as a precautionary public health measure following the BSE crisis, the UK banned the sale, for human consumption, of meat from cattle aged over thirty months at the time of slaughter. Cattle are slaughtered at approved centres and carcasses disposed of by incineration. According to provisional figures about 7.3 million animals have been slaughtered under the Over Thirty Months Scheme (OTMS) up to the end of June 2004<sup>5</sup>. During 2003 approximately 722,000 animals entered the OTMS scheme in the UK<sup>6</sup>.

OTMS payment rates are currently (since 28/4/03) set at €0.64 per kg liveweight for cows and €0.83 per kg liveweight for other animals, converted into sterling based on the reference exchange rate at the beginning of the month in which the animal is slaughtered. Prior to the 28<sup>th</sup> of April 2003, OTMS payments were €0.8 per kg liveweight and €0.9 per kg liveweight for cows and other animals respectively<sup>7</sup>. Payment rates during 2003 varied between 43.9 and 55.2 pence per kg liveweight for cull cows and between 57.0 and 62.1 pence per kg liveweight for other animals.

Exemptions to the OTMS rule apply only to certain later maturing animals, through the Beef Assurance Scheme, which allows some cattle considered to be from low-risk specialist herds to be slaughtered and sold for human consumption between 30 and 42 months of age<sup>8</sup>.

### **2.6 Bovine Tuberculosis**

During 2003, a total of 4301 farms were under restriction due to Bovine Tuberculosis (TB) in England. Eighty four percent of these were in the West of England region. Defra pay a 'reasonable' market value for all bovine animals suspected of suffering

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<sup>5</sup>DEFRA (2004b)

<sup>6</sup>Rural Payments Agency (2004)

<sup>7</sup>MLC (2004b)

<sup>8</sup>DEFRA (2004b)

from TB. Payment of this compensation at market value is intended to avoid undue impact on the financial situation of the farm, although restrictions on the sale of store animals from restricted farms can mean considerable difficulties for affected holdings. It was decided early in the setting up of this survey that it was outside the scope of the survey to study such effects.

## **2.7 Foot & Mouth Disease**

During 2001 large areas of the UK were under restriction due to the outbreak of Foot and Mouth Disease. Almost 760,000 cattle were culled in the UK, and there are, at the time of writing in late 2004, still restrictions on the selling of store animals and the selling of finished animals through live markets. Other studies have been made into these restrictions.



## CHAPTER 3: Management analysis of surveyed enterprises

### 3.1 Introduction

Physical data was collected as outlined in Chapter 1. The results of this analysis is shown below

### 3.2 Suckler herds

The suckler herd generally utilises pasture land and occasional arable by-products. The herd produces suckled calves, which are sold or transferred into a finishing enterprise at, on average, between 7 and 9 months of age.

**Table 3.1 Farm type analysis of suckler herd distribution – numbers**

Farm Type		All herds	10-24 cows	25-49 cows	Over 50 cows
Cereal		15	3	5	7
General cropping		6	1	1	4
Lowland dairy		8	2	4	2
Lowland cattle & sheep		41	12	19	10
Mixed		20	4	8	8
TOTAL		90	22	37	31
	North	West	East	Top quartile	Bottom quartile
Cereal	4	5	6	6	4
General cropping	3	0	3	0	1
Lowland dairy	2	4	2	2	3
Lowland cattle & sheep	11	18	12	11	6
Mixed	6	7	7	4	9
TOTAL	26	34	30	23	23

### **3.2.1 Farm type analysis**

The average suckler herd in the sample of 90 enterprises had 49 cows. Twenty four percent of the enterprises fell within the under 25 cow category, 41% had between 25 and 49 cows with a further 34% having over 50 cows (Table 3.1).

With regard to farm types (Table 3.1), it was observed that 46% of the sample fell into the lowland cattle and sheep type with a further 23% general cropping and cereal farms and 22% of mixed farm type. Of the worst performing enterprises, only 26% were on specialist stocks farms.

Of the 90 enterprises within the survey 33% were in the East of England, 29% in the North of England, and a further 38% in the West of England. Further assessments of the data has been made between breed types within the suckler herd, with 39% being of pure continental type and 20% being pure continental cross dairy breed types.

The average farm area was 142 hectares, including 77 hectares of forage.

The 90 enterprises in the sample contained a total of 4260 suckler cows with an average value of £477. These enterprises also had a total of 139 bulls with an average value of £1042.

### **3.2.2 Breeds**

The survey looked at any variance between herds with regard to cattle breeds (Table 3.2). A total of 39% of the cow herd on all enterprises were of continental breeds excluding continental crosses. There was however, significant variation between size groups in the sample. In size group 1 (below 25 cows) only 20% were of continental breed whereas 46% of cows in the over 50 cow size group were continental breeds. The small suckler size group made considerably more use of dairy cross cows at 40%, with only 16% dairy crosses in the large size group. The Eastern region had far greater numbers of continental cows (57%) when compared to the other regions. There were also significant regional variations with the use of dairy cross cows; 43% in the North, 29% in the West, and only 3% dairy crosses used in the East.

A total of 80% of the bulls used within the sample were of continental breeds. However, in the small size group only 35% of the bulls were of continental breed,

with 65% of bulls in the small size group being British breeds - a significant figure when considering that the average figure for the total sample was only 14%.

**Table 3.2 Comparison of cow breeds at opening valuation (percentages)**

BREED		All herds	10-24 cows	25-49 cows	Over 50 cows
Continental		38.52	19.81	28.85	46.2
British		12.72	23.15	13.86	10.49
Dairy		0.56	0	1.92	0
Continental X British		16.95	14.80	8.17	21.52
Continental X Dairy		19.81	26.49	26.44	15.54
British X Dairy		4.58	13.37	9.62	0.73
Other		1.01	0	3.45	0
Mixed		5.85	2.39	7.69	5.51
BREED	North	West	East	Top quartile	Bottom quartile
Continental	17.59	37.5	56.58	26.11	41.33
British	8.14	16.75	11.61	15.6	10.77
Dairy	0	0.53	1.06	0	1.05
Continental X British	29.48	6.31	19.56	14.67	11.83
Continental X Dairy	37.1	24.76	0	25.58	21.55
British X Dairy	5.51	4.54	3.87	6.28	4.10
Other	0	0	3.03	0	5.04
Mixed	2.19	9.61	4.29	11.76	4.33

### 3.2.3 Calvings and calf disposals

Sixty one percent of the enterprises were spring calving with 18% using an all year calving system. This compared with 57% and 15% respectively in the 1996 survey.

The disposal of calves from the suckler cow enterprise occurs in the majority of systems (70%) between 7 and 9 months of age.

**Table 3.3 Disposals of calves from the suckler herd (percentages)**

Disposal		All herds	10-24 cows	25-49 cows	Over 50 cows
Store calves sold		7.68	19.85	14.79	2.51
Calf couples sold		0.64	2.06	0	0.73
Sold for breeding		0.19	0	0	0.31
Transferred to trading		89.58	76.29	82.6	94.87
Bulls transferred for breeding		0.19	0.26	0	0.27
Heifers transferred for breeding		1.71	1.55	2.61	1.31
Disposal	North	West	East	Top quartile	Bottom quartile
Store calves sold	3.97	6.70	12.42	0.74	19.63
Calf couples sold	1.86	0.29	0	0.31	0.13
Sold for breeding	0	0.46	0	0.49	0
Transferred to trading	92.57	90.53	85.56	96.11	76.13
Bulls transferred for breeding	0.08	0.06	0.47	0.06	0.93
Heifers transferred for breeding	1.52	1.96	1.55	2.29	3.18

There is considerable variation in how calf disposal occurs, not only between the different size groups, but also from region to region and between top and bottom quartile (as measured by net margin per forage hectare (see Table 3.3)). A total of 8% of the calves are sold as store calves at weaning, with this rising to 20% in the small size group, 15% in the medium size group but only 3% in the large size group.

The regions also vary with 4% in the North, 7% in the West and 12% in the East of calves produced being sold off the cow as store calves.

There is considerable variation between the top and bottom quartile, where just under 1% of the calves in the top quartile are sold immediately whereas 20% are sold from the enterprises in the bottom quartile.

### **3.2.4 Suckler Cow Premium Scheme payments**

Of the eligible cows within the sample, 89% received Suckler Cow Premium with significant variation between size groups. Eighty four percent of cows in small herds, 80% of cows in medium sized herds and 94% of cows in large herds received Suckler Cow Premium (Table 3.4).

Herds in the top quartile received Suckler Cow Premium on 97% of the eligible animals, compared to 73% in the bottom quartile.

Overall, 7.7% of all farms did not receive Suckler Cow Premium, either because the suckler herd was run on the same farm as a dairy herd (4.4%), or because the farm did not hold Suckler Cow Premium quota (3.3%). Of the farms in the bottom quartile, 17% did not receive Suckler Cow Premium. All farms in the top quartile received Suckler Cow Premium.

Seven farms had leased in a total of 169 units of Suckler Cow Premium quota at an average price of £109.

### **3.2.5 Extensification Payment Scheme payments**

Almost half (49%) of all farms in the sample qualified for the higher rate of Extensification Payments, having a stocking rate of less than 1.4 LU per forage hectare (Table 3.4). A further 24% received Extensification at the 1.8 LU per forage hectare rate, with 27% of farms not receiving Extensification Payments. In the top quartile 57% received Extensification at the higher rate, whilst only 22% did not receive any Extensification Payments. Only 21% of farms in the bottom quartile received the higher rate Extensification Payment with 53% not receiving any Extensification Payments in 2003.

It is difficult to avoid the conclusion that direct subsidies are a critical factor in the profitability of English suckler cow herds.

**Table 3.4 Suckler Cow Premium and Extensification Payment Scheme**

		All herds	10-24 cows	25-49 cows	Over 50 cows
Percentage of farms not receiving SCP		7.78	13.64	8.11	3.23
Percentage of cows not receiving SCP		11.23	16.38	19.89	6.47
Percentage of farms receiving higher rate Extensification		49.40	42.11	55.88	46.67
Percentage of farms receiving lower rate Extensification		24.10	26.32	23.53	23.33
Percentage of farms not receiving Extensification		26.51	31.58	20.59	30.00
	North	West	East	Top quartile	Bottom quartile
Percentage of farms not receiving SCP	7.69	8.82	6.67	0	17.39
Percentage of cows not receiving SCP	14.83	6.61	13.74	2.98	26.82
Percentage of farms receiving higher rate Extensification	37.50	54.84	53.57	56.52	21.05
Percentage of farms receiving lower rate Extensification	33.33	22.58	17.86	21.74	26.32
Percentage of farms not receiving Extensification	29.17	22.58	28.57	21.74	52.63

### 3.2.6 Concentrate management

Throughout the whole sample the average total concentrate fed per cow was 263kg/head (see Table 3.5). Concentrate usage varies between the regions, with 240kg/head being fed to cows in the North, 247kg/head in the West, and 302kg/head in the East. The West makes little use of home grown cereals at 72kg/head compared to 120kg/head in the North and, not surprisingly, 153kg/head in the East.

There is also a significant difference between the total concentrate usage of the top quartile, at 317kg/head, compared to the bottom quartile, at 380kg/head.

**Table 3.5 Concentrate usage per cow (including feed for pre weaned calves) - kilogrammes per head**

		All herds	10-24 cows	25-49 cows	Over 50 cows
Purchased compounds		47.94	145.12	30.26	41.45
Purchased straights – cereals		35.73	17.47	23.18	44.47
Purchased straights – proteins		22.61	1.28	7.50	33.02
Purchased straights – other		22.71	4.02	16.41	28.55
Home grown straights – cereals		111.69	15.12	81.79	140.63
Home grown straights – proteins		3.35	0	1.37	4.81
Mineral & vitamin supplements		19.10	21.92	18.87	18.78
Total		263.13	204.93	179.38	311.71
	North	West	East	Top quartile	Bottom quartile
Purchased compounds	31.14	41.23	69.60	42.10	90.58
Purchased straights – cereals	5.48	52.65	39.99	56.91	7.45
Purchased straights – proteins	24.99	38.16	2.02	43.63	2.62
Purchased straights – other	43.45	18.15	11.34	37.68	22.22
Home grown straights – cereals	120.40	71.78	152.5	116.59	219.94
Home grown straights – proteins	2.53	0	8.04	0	15.58
Mineral & vitamin supplements	11.83	24.74	18.22	20.57	21.87
Total	239.82	246.71	301.71	317.48	380.26

There are other major variances, as the top quartile only use 42kg/head of purchased compound feed and 117kg/head of home grown cereals. The bottom quartile however, uses 91kg/head of purchased compound feed and 220kg/head of home grown cereals.

### **3.2.7 Stocking rate and fertilizer usage**

The average stocking rate within the sample is 1.2 cows per forage hectare. In the small and medium size groups the stocking rate is 1.12 cows per forage hectare but is 1.23 cows per forage hectare in the large size group. We also see a more intensive stocking rate in the North at 1.29 cows per forage hectare, with the West at 1.21 cows per forage hectare and the East at 1.09 cows per forage hectare.

Analysis of the stocking rate and fertiliser reveals a common trend where the large size group use far more fertiliser per forage hectare, 376kg per forage hectare, compared to 202kg per forage hectare in the small size group and 262kg per forage hectare in the medium size group. This trend is continued with a regional variation of 382kg per forage hectare in the North, 286kg per forage hectare in the West, and 280kg per forage hectare in the East. The top quartile also uses more fertiliser, 343kg per forage hectare, compared to 306kg per forage hectare by the bottom quartile.

Nitrogen usage varied between 97kg per forage hectare in the North, 84kg per forage hectare in the East and 74kg per forage hectare in the West which further demonstrates the greater intensity and stocking rate in the North.

### **3.2.8 Labour usage**

Labour usage per cow, not including labour for production of forage, was analysed. The average for all farms within the survey was 11.26hrs/cow. There were significant differences between size groups. The small size group spent 19.22hrs/cow, the medium group spent 12.92hrs/cow whilst the large size group only spent an average of 9.26hrs/cow dealing with the suckler herd.

There is also a considerable difference between the top and bottom quartile within the sample. The top quartile only spent 7.54hrs/cow whilst the bottom quartile spent 20.03hrs/cow. Not all of this difference can be attributed to the size difference between the top and bottom quartiles. Large herds in the sample average 87 cows per herd and 13hrs/cow, whilst the top quartile had an average of 70 cows and 9hrs/cow. This indicates that it is not just economies of scale that contribute to the efficiency of labour on the top quartile farms.



### 3.3 Trading Enterprises

#### 3.3.1 Enterprises F1/F2

For the purposes of this report, the F1 and F2 sample groups were combined due to the lack of sufficient numbers. Originally, the F1 group contained only 3 enterprises and was based on intensive cereal beef finishers, generally finishing animals at less than 12 months old but excluding veal producers. The F2 group contained 43 enterprises and covered other intensive finishers, generally finishing animals between 12 and 16 months of age. This combined group accounts for 19% of the enterprises in the survey, but accounts for 29% of the total throughput at 1611 tonnes.

Eighty nine percent of the F1/F2 group were found on either dairy or mixed farm types where they possibly utilise available buildings from other enterprises, and on cereal farms, where they can make use of excess cereals and bedding (see Table 3.6). This trading beef group also occurs on dairy farms because the beef cross calf is a by-product of the dairy enterprise.

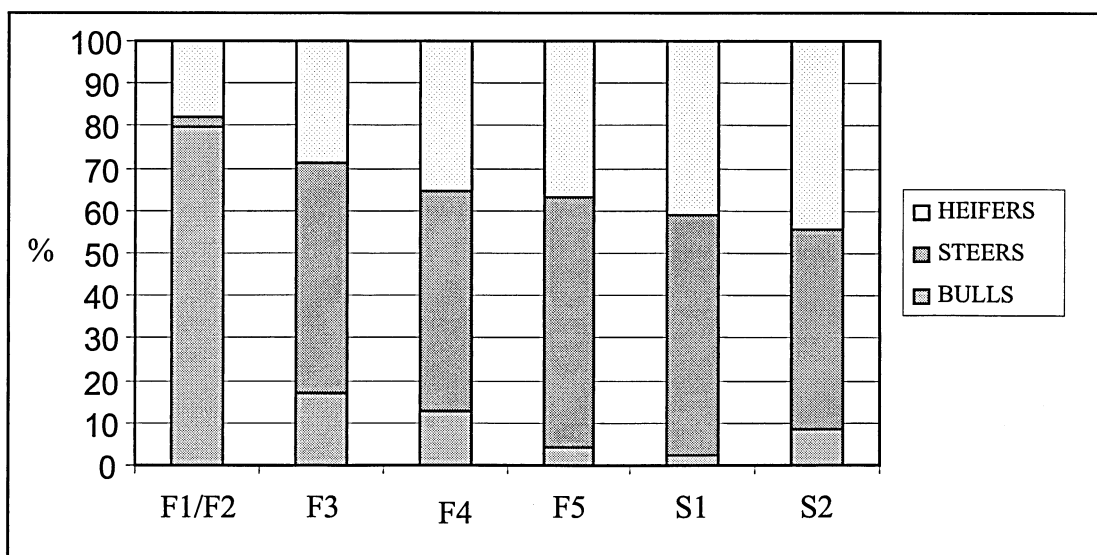
The average number of animals during 2003 was 95, which is very close to the overall average, but the farm size on which these enterprises occur is 37% larger than the average farm at 116 ESU. This confirms that this type of beef enterprise often occurs as an integral part of mixed enterprise farms.

**Table 3.6 Farm type versus beef enterprise type –number of enterprises**

Farm type:	F1/F2	F3	F4	F5	S1	S2	Total
Cereal	13	2	5	15	2	7	44
General cropping	5	1	1	7	0	2	16
Horticulture	0	0	1	0	0	0	1
Lowland dairy	11	3	0	12	12	4	42
Lowland cattle & sheep	5	6	6	28	10	19	74
Mixed	12	1	11	20	4	7	55
Total	46	13	24	82	28	39	232

The F1/F2 group started 2003 with an average of 80% bulls, compared with an average of only 21% bulls across the whole sample (Figure 3.1).

**Figure 3.1 Relative proportions of bulls, steers and heifers – opening valuation**



Thirty one percent of the animals sold during 2003 in the F1/F2 sample were pure dairy animals, although only 11% of additions were from the farms own dairy herd. The average death rate within this group was the highest out of all groups at over 12%, compared to 4.5% deaths overall.

As expected, this intensive system attracts far less Extensification Payments than other systems. On average, 53% of Beef Special Premium claims on the 232 enterprises in the survey qualified for Extensification Payments. This figure falls to 22% in the F1/F2 group (Table 3.7).

**Table 3.7 Extensification Payment Scheme claims – percentages**

	F1/F2	F3	F4	F5	S1	S2	All
Higher rate	10.87	38.46	33.33	47.56	21.43	51.28	35.78
Lower rate	10.87	7.69	37.5	15.85	21.43	17.95	17.67
No extensification	78.26	53.85	29.17	36.59	57.14	30.77	46.55

The intensive system also had a higher feeding rate per kg throughput than the other systems. For every kg throughput the animals were fed a total of 5.54kg of feed with 3.26kg of that made up from home grown cereals (Table 3.8).

**Table 3.8 Concentrate usage per kg throughput (kilogrammes)**

	F1/F2	F3	F4	F5	S1	S2	All
Purchased compounds	0.99	1.43	0.59	0.61	0.91	0.21	0.79
Purchased straights – cereals	0.55	0.28	0.31	0.71	0.79	0.11	0.56
Purchased straights – proteins	0.42	0.05	0.18	0.22	0.13	0.17	0.25
Purchased straights – other	0.19	0.01	0.04	0.41	0.07	0.51	0.25
Home grown straights – cereals	3.26	2.07	1.74	1.28	0.14	1.18	1.84
Home grown straights – proteins	0.10	0	0.03	0.05	0	0.05	0.05
Mineral & vitamin supplements	0.02	0.02	0.06	0.04	0.01	0.04	0.03
Milk fed	0.01	0.08	0	0.01	0.17	0	0.03
Total	5.54	3.94	2.95	3.33	2.22	2.27	3.80

Not surprisingly this group also had the highest daily liveweight gains of all the groups with the animals gaining an average of 1.01kg per day. (Table 3.9)

**Table 3.9 Average daily liveweight gain in kilogrammes by enterprise type**

	F1/F2	F3	F4	F5	S1	S2	All
DLWG	1.01	0.69	0.69	0.66	0.61	0.58	0.72

### 3.3.2 Enterprise F3

F3 are calf-based semi intensive finishers, generally purchasing or transferring in calves under 3 months of age and finishing between 17 and 22 months. This system occurs on only 13 out of the total of 232 enterprises, but has the largest average size at 147 animals (Table 4.12). Whilst these F3 type enterprises only contribute 8.4% of the

total throughput of the survey, it still has a significant aggregate throughput of 477 tonnes. In contrast to the more intensive group, 46% of this group were found on lowland cattle and sheep farm types with a further 23% found on dairy farms.

Over 43% of all animals added to this group were bulls (Table 3.10) with 65% of the overall numbers at the opening valuation date being continental cross dairy type (Table 3.13).

**Table 3.10 Additions to the trading enterprises – number (percentages)**

	F1/F2	F3	F4	F5	S1	S2
Bulls	3972 (81.01)	516 (43.29)	395 (23.62)	253 (3.18)	44 (2.61)	391 (16.99)
Steers	113 (2.30)	408 (34.23)	715 (42.76)	4935 (62.05)	1052 (62.36)	1010 (43.87)
Heifers	818 (16.68)	268 (22.48)	562 (33.61)	2765 (34.77)	591 (35.03)	901 (39.14)

This concentration on dairy cross animals also explains the very high proportion of purchased animals within the F3 enterprise. Within this system 84% of all additions to enterprises are purchased, compared to the average of 64% (Table 3.11). The fact that this system relies on purchasing young calves from dairy farms is also evidenced by the move away from the East. Only 23% of F3 enterprises are in the East, compared with 35% of the more intensive F1/F2 group.

The average death rate within this group was far lower than that experienced within the F1/F2 group at 3.4%, which is lower than the overall average of 4.5%. A possible reason for this may be that this enterprise occurs on specialist stock farms, where the beef enterprise may be a more important component of the farm than on more mixed farms.

The feeding rate of this group was the second highest of all the groups at 3.94kg fed per kg throughput. Of this 2.07kg is made up of home grown cereals, compared to 3.26kg on the F1/F2 enterprises. A further 1.43kg per kg throughput is purchased compound, compared to only 0.99kg on the more intensive units. This again suggests a move away from mixed farms towards more specialist grassland farms. As expected the daily liveweight gain for this group, at an average of 0.69kg/day, was lower than that of the F1/F2 group, but is the 'best of the rest' for daily liveweight gain.

The high average size of this group probably contributes to the high reliance on paid labour. Overall, only 21% of labour hours (excluding forage production) is paid labour, but this figure increases to 31% for the F3 group

### 3.3.3 Enterprise F4

Enterprise F4 contains store-based semi intensive finishers, generally purchasing or transferring in calves over 3 months of age and finishing at between 17 and 22 months.

There are 24 enterprises falling into this group, accounting for 10% of the total output. Within the F4 group, 46% of the enterprises were found on mixed farm types, with a further 29% found on cropping type farms. Only 25% of these enterprises were on lowland cattle and sheep farms, with none on dairy farms. This indicates the classic system of store cattle being raised in the Northern and Western livestock farming area being transferred to mixed and cereal farms for fattening. Indeed, almost 46% of these systems occur in the East.

This system also covers the 'all through' producer, who fattens his own calves. For the purposes of this survey, the F4 system begins when the calf is weaned. A good indication of the numbers of the two systems present is the proportion of calves purchased, 47%, versus the number transferred in, 53% (Table 3.11).

**Table 3.11 Source of additions to trading enterprises – percentages**

	F1/F2	F3	F4	F5	S1	S2
Purchased	69.41	83.98	47.25	76.83	42.38	27.5
Transferred from own suckler herd	19.82	2.35	52.75	15.79	2.73	71.55
Transferred from own dairy herd	10.77	13.67	0	7.38	54.89	0.96

This group had a low death rate at only 1.8% which would be expected as only 2% of additions are of calves at less than 3 months old.

The F4 groups' average feeding rate was 2.95kg per kg throughput, with only 1.74kg of this diet being made up of home grown cereals. The average daily liveweight gain for cattle within this group was the same as that achieved by the F3 group at 0.69kg. There are significant differences between the F3 group and the F4 group in terms of Extensification Payment Scheme receipts. A similar percentage of the farms in both groups manage to receive Extensification at the higher rate (see Table 3.7), however, almost 54% of the F3 group do not claim Extensification at all, compared to only 29% of the farms in the F4 group.

**Table 3.12 Calculated stocking rate – LU per forage hectare**

	All	F3	F4	F5	S1	S2
Stocking rate	1.53	1.59	1.58	1.42	1.33	1.26

### 3.3.4 Enterprise F5

F5 covers extensive finishers, generally finishing at over 22 months old.

This enterprise type is by far the most numerous in the survey, with over 35% of enterprises generally finishing at over 22 months old.

Within the F5 group, 59% of enterprises were found on either lowland cattle and sheep farms or mixed farm types. Over half of the 82 farms employing this extensive system of beef production were found in the West. Almost 77% of the animals added to these enterprises during 2003 were purchases, with only 16% transferred from the farms own suckler herd, and the remaining 7% from the farms own dairy herd. This clearly shows that in lowland England, extensive finishing of calves born on the farm is not common - the majority of calves produced from the farms own suckler herd are finished before they are 22 months old.

Over 62% of additions were steers with a further 35% being heifers. The breed type within this group was more diverse with 37% of the animals being continental cross dairy, 22% continental and 12% continental cross British beef type (see Table 3.13).

**Table 3.13 Breed type of trading enterprise opening valuation animals - percentages**

	F1/F2	F3	F4	F5	S1	S2
Continental	16.38	4.45	61.03	22.17	11.17	39.10
British	0.39	1.48	4.83	6.05	0.55	11.43
Dairy	44.65	11.21	2.57	8.27	15.82	3.15
Continental X British	2.33	4.78	4.30	12.35	0	25.34
Continental X Dairy	27.25	64.87	8.86	37.28	63.14	16.86
British X Dairy	1.81	9.57	0.27	4.78	9.31	1.02
Other	0	0	0	2.65	0	0
Mixed	7.19	3.63	18.16	6.43	0	3.10

Although animals within this group were produced in an extensive system they had a higher death rate than that of the F4 group at 2%. This may be explained by the fact that 25% of animals added to this enterprise during 2003 were less than 3 months old. In fact, no clear pattern of additions for the F5 group is evident (Table 3.14).

**Table 3.14 Age of animals at addition to trading enterprises – percentages**

Age	F1/F2	F3	F4	F5	S1	S2
0 – 3 months	66.53	91.95	2.39	25.07	97.21	3.08
4 – 12 months	31.82	8.05	70.28	32.65	2.55	95.13
13 – 24 months	0.24	0	27.33	41.02	0.24	1.17
Over 24 months	1.41	0	0	1.26	0	0.61

This group was fed a diet of 3.33kg per kg throughput which is higher than that of the F4 group. Only 1.28kg of this was home grown cereals, although the total fed was

more than that fed to the F4 group, F5 had a lower daily liveweight gain at 0.66kg compared to 0.69kg achieved by the F4 group, and the 0.72kg achieved overall.

### **3.3.5 Enterprise S1**

S1 are calf-based store producers, purchasing or transferring animals under 3 months old. There are 28 enterprises within this group, with an average of 86 animals per enterprise. Within this group, 43% of enterprises were on dairy farms with a further 36% found on lowland cattle and sheep farms. Of the additions to this group 62% were steers and 35% heifers. This group was predominately made up of continental cross dairy breed types making up a total of 63% of animals within the group. The average death rate within this group was the second highest of all trading groups at just over 4.5%.

Concentrate usage within this group was the lowest of all enterprise types, being only 2.22kg per kg of throughput, with 1.7kg of that made up of purchased compounds or straights. Very limited home grown straights were utilised within this enterprise. The average daily liveweight gain in this group was 0.61kg.

### **3.3.6 Enterprise S2**

The S2 group contains store-based store producers, purchasing or transferring animals at over 3 months old. Almost half the enterprises within the S2 group were on lowland cattle and sheep farm types, with 44% of additions being steers and 39% being heifers. This group was again diverse in breed type with 25% being continental cross British, 17% continental cross dairy, and 11% of British breed type. The total diet fed was slightly higher than that consumed by the S1 group at 2.27kg per kg throughput. There was however, more utilisation of home grown crops with 1.18kg of the diet being made up of home grown cereals. The average daily liveweight gain that this group achieved was 0.58kg which is slightly lower than that of the S1 group. Both S1 and S2 used more labour per kg throughput than the average. Overall, 30.27 hours of labour was used to produce 1 tonne of throughput, but the S1 group used 35 hours and the S2 group used more than 40 hours to produce 1 tonne of throughput.



### 3.3.7 Organic trading enterprises

Field workers were asked to note whether the enterprises being surveyed were organic, or in organic conversion. Although there were only 5 enterprises in the survey classified as organic, valuable data was collected and comparisons can be made.

All of the fully organic enterprise within the survey were of a similar type to F5 being extensive finishers, generally finishing at over 22 months old under organic regulations.

Of the 5 enterprises within this group 20% were on cereal farms, 20% on lowland cattle and sheep farms and 60% were on mixed farm types. The animals consisted of 53% steers and 47% heifers. Overall in this group 36% of animals were of mixed type and continental cross British animals making up 33% of the total animals within the group. The average death rate within the organic group, at 1%, was the lowest rate of all groups within the survey and half that of the rate achieved by the F5 group.

As one would expect, the majority of additions to these organic trading enterprises are from the farms own suckler herd, with only 13% of animals being purchased and 12% being transferred in from the farms own dairy herd.

This group had a concentrate diet of 1.56kg per kg throughput, the lowest of all groups and again half of what was fed to the F5 group. A considerable proportion, 1.05kg, of the diet is made up of home grown cereals. The average daily liveweight gain within this group was 0.51kg, again the lowest gain of all groups and 0.15kg less than that of its comparative group F5.

Stocking rate was also lower at 1.22 LU/forage hectare, and 3 out of 5 farms (60%) received extensification at the higher rate, compared to only 48% of the F5 group, and only 36% on average.

Labour useage was high at 45 hours per tonne of throughput, compared to 33.5 hours on the F5 enterprises.



## CHAPTER 4: Economic results

### 4.1 Introduction

In conformity with other studies of farm enterprises conducted within the programme of Special Studies in Agricultural Economics, this study of lowland beef presents financial results on a full economic cost basis. Hence, as well as recorded expenditures, some imputed cost items are also included, *viz.* the value of unpaid labour attributed to the lowland beef enterprise, a rental value for the owner-occupied land used for the enterprise, and a depreciation charge on the proportion of buildings and machinery used by that enterprise. The margins calculated for a lowland beef enterprise do not, therefore, necessarily coincide with the cash flow as perceived by the farmer, both because of the inclusion of imputed items and because no account is taken of interest charges on any borrowed capital. However, in what follows, the main imputed items are shown separately in order that the reader can place the economic results in perspective.

The tables presented in this chapter summarise the financial results for the surveyed farms by production *system*, by EU *region* and by herd *size*. The results focus on:

- (A) the value of the *output* from the lowland beef enterprise
- (B) the *variable costs* directly attributable to that enterprise
- (C) the *gross margin* from the enterprise, i.e. (A) - (B)
- (D) the *fixed costs* (excluding overheads) attributed to the enterprise
- (E) the *margin* from the enterprise *before* deduction of overheads,  
i.e. (C) - (D)
- (F) environmental scheme payments
- (G) the *overheads* allocated to the enterprise
- (H) the *net margin* from the enterprise *after* deduction of overheads,  
i.e. (E) + (F) - (G).

Results for the suckler herds are expressed on a *per cow* basis and a *per forage hectare* basis, while those for the trading enterprises are expressed on a *per kilogramme throughput* basis, as well as on a *per animal* basis, in order to provide

some measure of comparability between enterprises operating different systems. Apart from the most intensive trading enterprise, which tends not to utilize forage, the results are also presented on a *per forage hectare* basis.

Throughput ( $T$ ) is the weight equivalent of the value of enterprise output, and is calculated as follows for each beef trading enterprise:

$$T = (S_{lw} + S_{dw} + S_{oc} + T_{out} + C_{val}) - (O_{val} + P + T_{in})$$

where:  $S_{lw}$  is liveweight sales

$S_{dw}$  is the liveweight equivalent of deadweight sales, calculated by multiplying dressed carcase weight by a standard factor of 1.80

$S_{oc}$  is store and casualty cattle sales

$T_{out}$  is cattle transferred out of the enterprise

$C_{val}$  is all trading cattle in the closing valuation

$O_{val}$  is all trading cattle in the opening valuation

$P$  is purchases of store cattle and calves

$T_{in}$  is stores and calves transferred into the enterprise from suckler or dairy herds,

all measured in kilogrammes liveweight (kg).

When considering the financial results, readers should be aware of two important issues. Firstly, to arrive at net margins, a proportion of the farms' fixed costs has to be allocated to the lowland beef enterprise - this can be a difficult and imprecise task, particularly on multi-enterprise farms. Secondly, net margins require the further deduction of overhead costs (i.e. costs, such as general maintenance costs, which are unavoidably incurred by farms but which cannot easily be attributed to any particular enterprise). Because of the difficulty of ascertaining such costs on an individual farm where the focus of investigation is of a single enterprise, standard deductions supplied by Defra and based on Farm Business Survey whole-farm data have been used, rather than costs actually measured on the farms in the beef survey sample.

## **4.2 Suckler herds: total sample results.**

The average results per cow and per forage hectare for the 90 suckler herds in the sample are given in Table 4.3. Across the sample as a whole, the average herd size was 49 cows using 41 forage hectares, giving an average stocking rate per enterprise of 1.2 cows per forage hectare.

### **4.2.1 Output**

Total output per cow after deduction of replacement costs, was £404, or £479 per forage hectare. The value of calves accounted for 73% of total output, and for every £1 contributed by calf values, a further 51p was contributed by payments under the Suckler Cow Premium scheme.

### **4.2.2 Variable costs**

Variable costs amounted to £148 per cow, or £175 per forage hectare. The three largest elements of variable costs were forage, contributing 37%, and concentrates and veterinary costs contributing 23% and 10% respectively to the total.

### **4.2.3 Fixed costs**

Fixed costs totalled £299 per cow (£354 per forage hectare). Almost three-quarters of the fixed costs were accounted for by land rent/rental equivalent (36% of the total) and by labour (34% of the total).

### **4.2.4 Margins**

The gross margin of £256 per cow (£304 per forage ha) represented £63 per £100 of output. This left a margin before overheads of -£42 per cow (-£50 per forage ha). After imputed overhead charges for labour, machinery, buildings and a share of general farm overheads are deducted net margin per cow decreases to -£106 (-£126 per forage ha).

#### **4.2.5 Comments on the total sample results**

Despite Suckler Cow Premium receipts contributing an extra 51p for every £1 of output, only the gross margin returns were positive. The margin before overheads of -£42 per cow represents a deterioration from the position in the previous survey of lowland beef production where the average margin before overheads for 1995 and 1996 was £38 per cow (£60 per forage ha).

In strict economic terms, the average returns to the resources used by lowland suckler herds are insufficient. This being the case it is necessary to suggest an explanation of why farmers should choose such an enterprise.

Firstly, on a particular farm a suckler enterprise may contribute to total farm cash flow or it may contribute beneficially to the wider use of farm resources, such as the labour available or the quality of grazing. The enterprise then "adds value" in a way not easily captured by enterprise studies which essentially focus on easily measurable farm costs and returns.

Secondly, some of the fixed costs attributed to the enterprise may not be seen by farmers as "true" costs, particularly where no cash payments are involved. This is especially the case with regard to the costs imputed to unpaid labour and to the rental value imputed to owner-occupied land. These two items together amounted to £145 per cow (£172 per forage ha) which places some perspective on the net margin of -£106 per cow. This point is equally valid in all subsequent analysis in this chapter. It should be noted however, that these imputed costs cannot simply be ignored in order to arrive at cash income since other items (such as interest on farm borrowings) have not been included.

#### **4.3 Suckler herds: results for top and bottom quartiles**

An indication of the considerable variation in results between individual herds can be obtained from an analysis for the top and bottom herd sample quartiles. For this purpose, the quartiles were selected on the basis of the net margin per forage hectare, and the results are shown in Table 4.5.

### 4.3.1 Output

Total output per cow was £99 greater on herds in the top quartile than those in the bottom despite there being a difference of only £13 in the value of calf sales. This difference in output is primarily due to a variation in subsidy receipts. In the total sample of 90, 7 herds, or 8%, did not receive any Suckler Cow Premium. Four of these herds, or 17% were in the bottom quartile. All herds in the top quartile received Suckler Cow Premium.

Of the 23 farms in the bottom quartile, 10 received no Extensification Payments (43%) compared with 22 (24%) in the total sample. All farms in the top quartile received Extensification Payments. These are important considerations when examining the difference between the output of the top and bottom quartiles, which is greater still when the output per hectare are compared, and clearly demonstrates the importance of subsidies to the profitability of the suckler cow herd in 2003 (see also Table 3.4)

It is of interest to draw attention to the significant reduction in stocking rates since the 1995/96 study. In 1996 the stocking rate of herds in the top quartile was 2.2 cows per forage hectare. This had reduced to 1.4 cows per forage hectare in 2003. The equivalent figures for the herds in the bottom quartile were 1.5 in 1996, reducing to 1.4 in 2003 (see Table 4.1). Farmers in the top quartile would appear to have adjusted their stocking rates in response to changes in the extensification eligibility criteria.

**Table 4.1 Comparative stocking rate 1996 vs 2003 cows/forage ha**

Stocking rate	Top quartile	Average	Bottom quartile
1996	2.2	1.6	1.5
2003	1.41	1.19	1.37

### 4.3.2 Variable costs

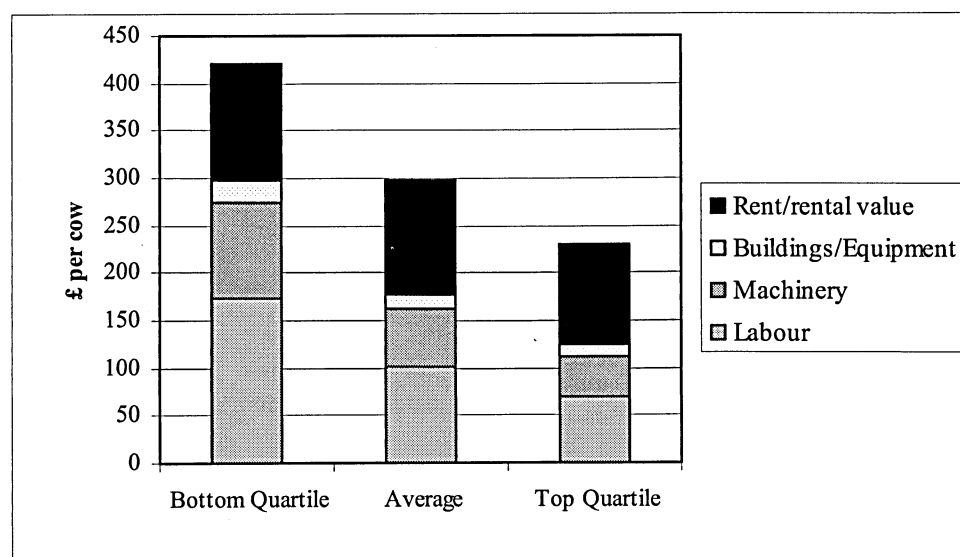
With the exception of agistment costs, which averaged 52 pence per cow for herds in the top quartile, every variable cost was greater for herds in the bottom quartile. The level of variable costs per cow ranged from £124 for the top quartile, to £148 for the sample average and to £201 for the bottom quartile. The level of variable costs per

forage hectare was the same at £175 for the average and top quartile herds and £275 for the bottom quartile. Concentrate cost, at between £38.10 per cow (top quartile) and £46.84 per cow (bottom quartile), and forage variable costs at between £48.17 per cow (top quartile) and £61.23 per cow (bottom quartile), were the main variable cost items for all groups.

#### 4.3.3 Fixed costs

Fixed cost levels varied substantially between the quartiles ranging from £229 per cow for the top quartile herds, to £299 for the sample average and £420 for the bottom quartile herds (Figure 4.1). On a per forage hectare basis, the fixed costs level ranged from £323 for the top quartile herds, to £354 for the sample average, and £573 for the bottom quartile.

Figure 4.1 – Suckler herd fixed costs by quartile - £/head



#### 4.3.4 Margins

The gross margins ranged from £161 per cow for the bottom quartile to £256 per cow for the sample average, and to £337 per cow for the top quartile. A similar pattern was apparent for gross margins per forage hectare, such that the gross margin per forage hectare for the top quartile herds was 56% above the sample average while that for the bottom quartile herds was 28% below the average.



By the net margin stage such differences in performance were further magnified. With average net margins for the sample of -£106 per cow and -£126 per forage hectare, the top quartile achieved net margins of £54 per cow and £77 per forage hectare, while the bottom quartile herds recorded net margins of -£339 per cow and -£463 per forage hectare. This represents a massive difference between the bottom and top quartile herds of £393 per cow and £540 per forage hectare.

#### **4.3.5 Comment on the top and bottom quartile results**

The analysis of top and bottom quartiles reveals the extremely wide variation in the results obtained from the sampled herds. While the returns to the bottom quartile are of particular concern, the returns to the average herd are still negative at the net margin level. Although the net margins for the herds in the top quartile are positive they are still below the returns observed for the top quartile in 1996 which were £105 per cow and £232 per forage hectare. While making such a comparison may be useful, some caution should be observed as they are not based on an identical sample.

#### **4.4 Suckler herds: regional results**

Tables 4.3 and 4.4 present the results per cow and per forage hectare by the 3 EU regions studied in England. The largest sample is from the West of England region with 34 herds. The East of England region contributed 30 herds and 26 herds were in the North of England region.

Average suckler cow herd size in the three regions ranged from 52 in the West to 46 in the North and stocking rates varied from 1.1 cows per forage hectare in the East to 1.3 cows per forage hectare in the North.

##### **4.4.1 Output**

While the output per cow was similar in the North, at £426 per cow, and West, at £429 per cow, in the East the output per cow, at £355, was considerably lower. A similar position is revealed when expressed on a per forage hectare basis. Output per forage hectare in the North was £551, £517 in the West and £387 in the East. The main difference in output could be attributed to lower levels of output from calves in

the East as the contribution to output from subsidies was similar in all regions at between £173 and £200 per forage hectare.

#### **4.4.2 Variable costs**

Total variable costs ranged between £131 and £168 per cow (£158 and £189 per forage hectare). In all regions the dominant variable costs were forage costs and concentrate costs. These together accounted for between 55% (in the East) and 65% (in the West) of the total.

Farms in the East spent the most per cow on concentrates, bulk feeds, veterinary and medicine costs, contract work, casual labour and miscellaneous variable costs.

#### **4.4.3 Fixed costs**

Total fixed costs per forage hectare ranged from £319 per forage hectare in the West to £388 in the North. Expressed per cow, total fixed costs were also lowest in the West at £265 compared with £338 in the East where they were highest. The most significant fixed costs were rent/rental equivalent (averaging 32% to 38% of total fixed costs), labour (averaging 31% to 36% of total fixed costs) and machinery costs (averaging 19% to 22% of total fixed costs).

Expressed on a per cow or a per forage hectare basis rent/rental equivalent, labour and machinery costs were greatest in the East region. Machinery costs, expressed per forage hectare, were largest in the North. It can also be noted that the East had the highest level of unpaid labour and rent/rental value imputed to owner-occupied land.

#### **4.4.4 Margins**

With the lowest outputs and highest variable costs, gross margins in the East were considerably lower than those in the West and the North. On a per cow basis gross margins ranged from £188 per cow in the East to £297 per cow in the West. On a per forage hectare basis, these ranged from £204 per forage hectare in the East to £359 per forage hectare in the West.

Gross margins per cow in the East were £53 per £100 of output, compared with figures of £66 for the North and £69 for the West, again reflecting regional differences in costs and outputs.

With regard to margins before overheads, only the West region shows positive returns at £33 per cow (£39 per forage hectare). These contrast with net margins of -£151 per cow (-£164 per forage hectare) in the East. Returns from the North were -£20 per cow (-£26 per forage hectare).

The net margin again emphasise the regional variation. Although all herds show a negative return, the gap between herds in the West, returning -£27 per cow (-£33 per forage hectare), and herds in the East, giving a net margin of -£218 per cow (-£238 per forage hectare), has increased further. These returns for the East suggest very poor returns from suckler cows even when account is taken of the fact that charges are imputed for unpaid labour and for the rental value of owner-occupied land. These 'notional' charges amounted to £166 per cow and £181 per forage hectare and do not offset the negative net margins recorded.

#### **4.4.5 Comments on the regional results**

The main feature of the regional results is the comparatively low returns in the East. In addition to the points raised previously it can be noted that both stocking rates per forage hectare and the number of calves weaned per cow were lower than in the other two regions.

#### **4.5 Suckler herd: herd size results**

Tables 4.6 and 4.7 present the suckler herd sample results per cow and per forage hectare by herd size. Average stocking rates in the two smaller groups were the same at 1.1 cows per forage hectare and rose to 1.2 cows per forage hectare in the largest size group.

### **4.5.1 Output**

The output per cow attributable to calves was identical at £297 in the largest and smallest group and at £289 the figure for the middle size group was similar. The total output increased from £372 per cow for the smallest group to £417 per cow in the largest. The higher stocking rates for the larger group resulted in a higher contribution from Suckler Cow Premium per forage hectare.

### **4.5.2 Variable costs**

Variable costs were not significantly different between the three groups. Expressed on a per cow or a per forage hectare basis variable costs were lowest for the middle size group, with relatively low expenditure on concentrates and bulk feeds. Forage variable costs, which were the largest component of variable costs on all size groups, were very similar with the range being from £53 to £55 per cow.

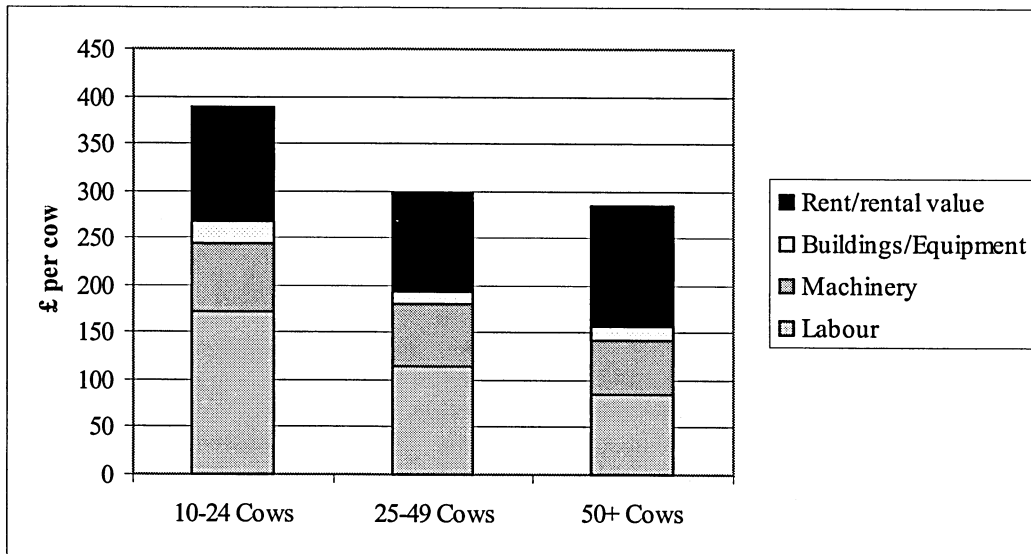
### **4.5.3 Fixed costs**

While fixed costs were similar in the two larger size groups, costs on both a per cow and per forage hectare basis were considerably higher for the smallest group. This was the result of much higher labour costs on the smallest farms. Labour costs per cow in the smallest group were more than double those of the largest, confirming that economies of scale are a factor in the suckler cow enterprise (Figure 4.2).

### **4.5.4 Margins**

Gross margins were positive for all size groups. However, they were lowest in the smallest size group with a clear tendency to improve with increasing herd size. This was more noticeable when net margin results are examined on both a per cow and per forage hectare basis. All size groups showed a negative return at the net margin level.

**Figure 4.2 – Suckler herd fixed costs by herd size - £/head**



#### 4.5.5 Comment on the herd size results

The tendency for returns to improve with size could also be observed when the average, top, and bottom quartile herds are examined. Average herd size ranged from 36 cows in the bottom quartile to 49 cows for the total sample and up to 70 cows for farms in the top quartile. However, herd size could not explain regional differences in performance where the average size of the herds in the East is 49 cows, compared with 46 cows in the North and 52 cows in the West.

**Figure 4.3(a) Main suckler herd results by herd size**

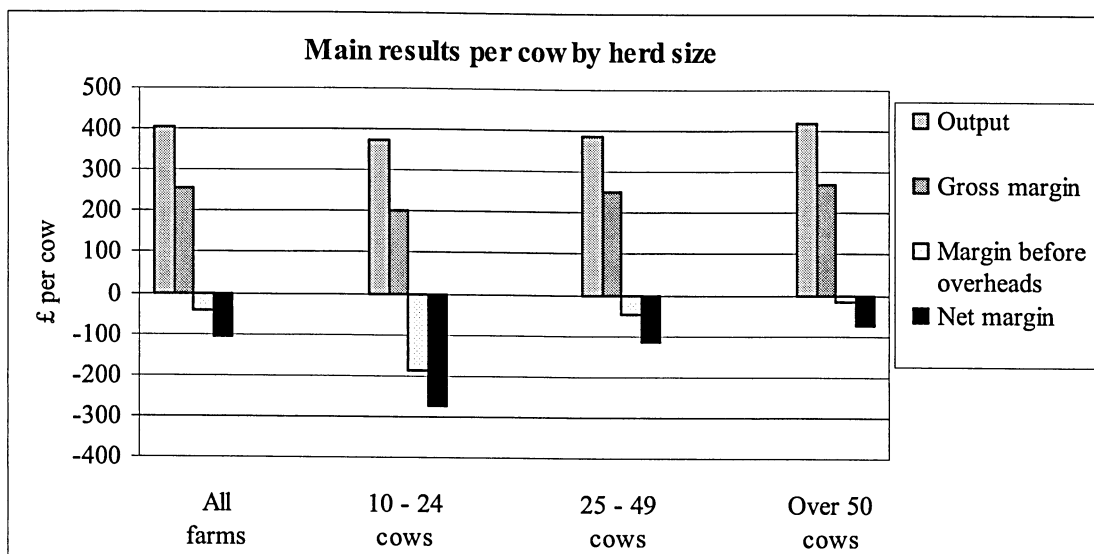


Figure 4.3(b) Main suckler herd results by region

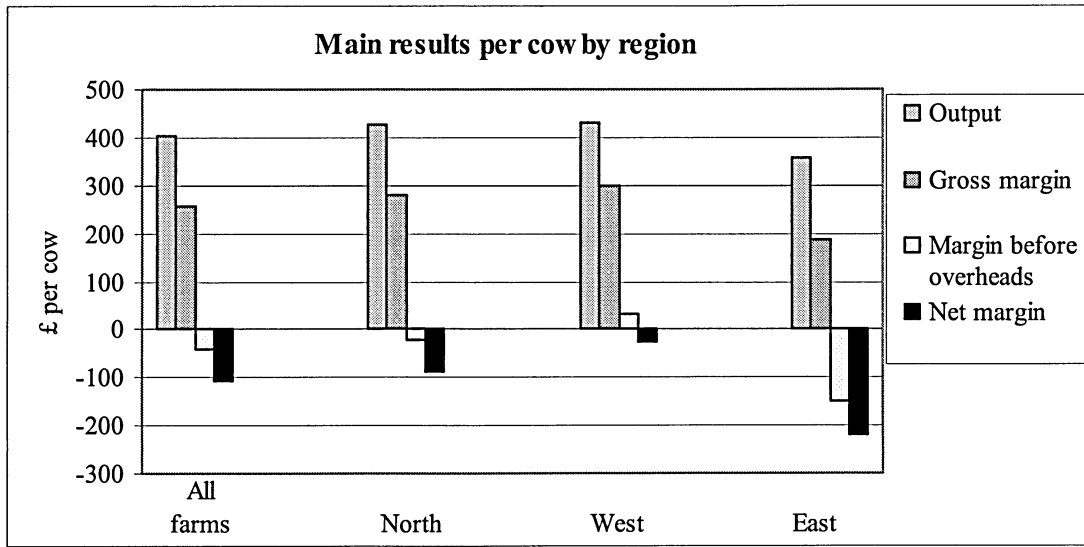


Figure 4.3(c) Main suckler herd results by quartile

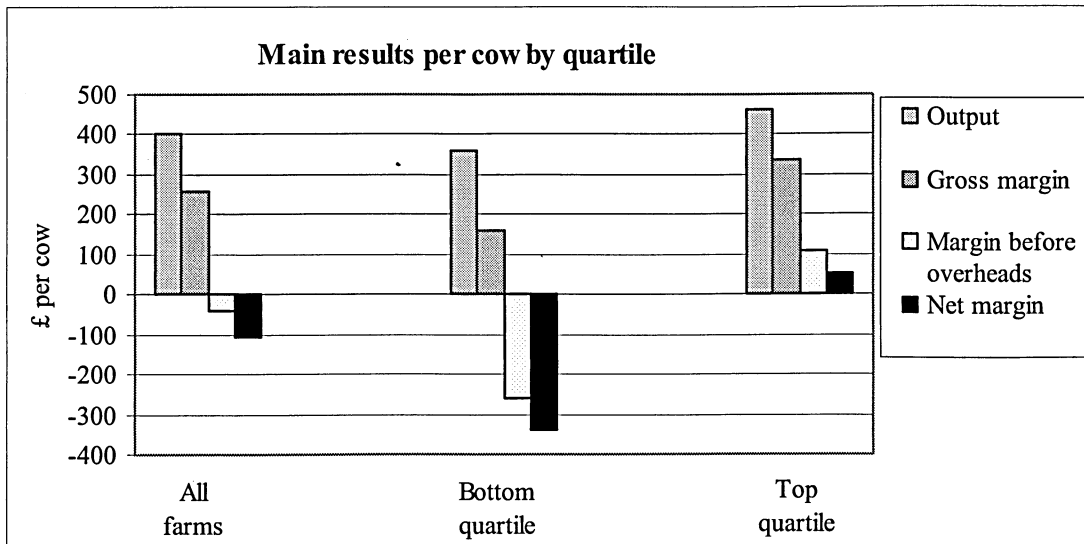
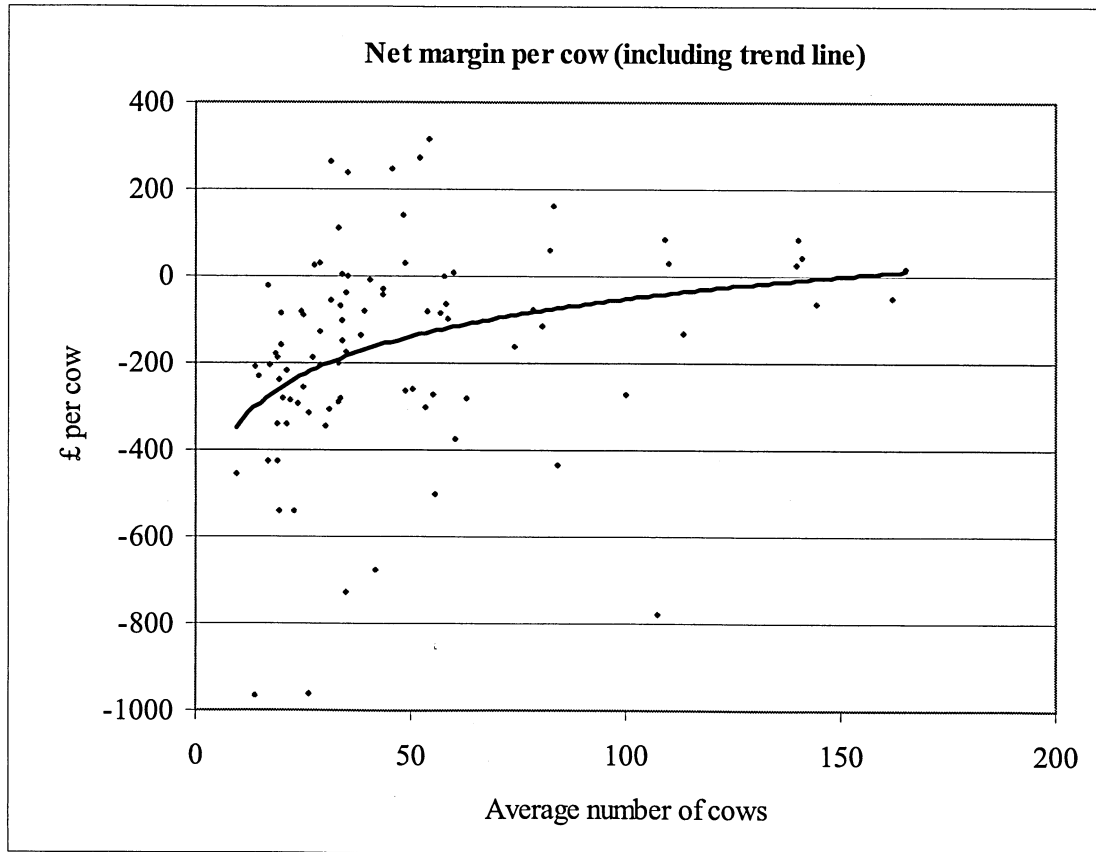


Figure 4.4 Trend of net margin versus herd size



## **4.6 Trading enterprises: total sample results**

The average financial results for the sample of 232 trading enterprises are given in Table 4.8. A major difficulty in presenting trading enterprise results is the selection of an appropriate denominator which would allow meaningful comparison between enterprise systems. Outputs, costs and margins per animal may lack meaning when comparing different systems finishing animals over differing periods of time, and outputs, costs and margins per forage hectare may lack meaning when different systems employing differing extents of indoor and outdoor production are studied.

In this report, concentration is primarily on results expressed on a per kilogramme throughput basis (discussed earlier in this chapter), and secondly on results expressed on a per forage hectare basis. Using results expressed on a per kilogramme basis allows some comparison to be made between different production systems, although comparison with suckler herds is not possible as suckler results are only expressed on a per cow and per forage hectare basis. Per forage hectare results allow comparison only of forage based systems (including suckler herds) and is an useful measure against other area based enterprises. However, it has to be viewed with some caution when used to express results from the more intensive beef production systems where land is not a major input. In fact, results per forage hectare are not presented in this report for the intensive barley beef system F1 nor for the other intensive finishing system F2 (where many enterprises make little use of grazing, although silage is used widely), since such results would not allow meaningful comparison with more extensive systems.

The 232 trading enterprises in the sample produced a total throughput of 5618 tonnes of beef in 2003. The average number of animals was 92 on an average adjusted forage area for each trading enterprise of 28 forage hectares.

### **4.6.1 Output**

The average output for the whole sample was 129p/kg throughput (£1110 per forage hectare). Of this, 65% was derived from cattle sales with 35% the result of Beef Special Premium and Slaughter Premium receipts.



#### **4.6.2 Variable costs**

Variable costs totalled 67.2p/kg throughput (£579 per forage hectare). The most significant variable costs were concentrate costs at around 56% of the total and forage costs at around 12% of the total.

#### **4.6.3 Fixed costs**

Fixed costs totalled 59.53p/kg throughput (£512 per forage hectare). The main fixed costs were labour costs and rent/rental equivalent, which together amounted to 66% of the total.

#### **4.6.4 Margins**

Gross margins were 61.74p/kg throughput (£531 per forage hectare). The gross margin amounted to £48 per £100 of output.

When fixed costs were deducted the average margin before overheads was 2.21p/kg throughput (£19 per forage hectare). After deduction of overheads the average net margin fell to -8.97p/kg throughput (-£77 per forage hectare).

#### **4.6.5 Comments on the total sample results**

Prior to the deduction of overheads, margins for the average enterprise were positive. Net margins were negative, with 28.91p/kg throughput of costs attributed to unpaid labour and the rental value imputed to owner-occupied land. As discussed earlier, in the context of the suckler herd results, this may explain in some part why farmers continue to allocate resources to enterprises which produce a negative economic return.

#### **4.7 Trading enterprise: system results (refer to Table 1.1 for system descriptions)**

The average results for the whole sample conceal differences between systems, as shown in Tables 4.9 to 4.14. With the exception of intensive cereal beef, F1, where there were only 3 farms in the sample, there were a sizeable number of enterprises in each system (the F1 results have been amalgamated with the F2 enterprises for the purpose of this analysis). With the possible exception of store-based store production, S2, all systems generated a sizeable level of throughput.

##### **4.7.1 Output**

Output from the different systems ranged from 117.3p/kg throughput (calf-based store producers, S1) to 146.5p/kg throughput (store-based store producers, S2). Expressed in per forage ha terms<sup>1</sup>, the output was highest for the semi intensive finishers (F3) at £1049 per forage hectare and lowest for the store-based store producers (S2) at £776 per forage hectare.

The proportion of output derived from cattle ranged from 58% (store-based semi intensive finishers, F4) to 82% (calf-based store producers, S1).

##### **4.7.2 Variable costs**

Variable costs ranged from 56.2p/kg throughput in the calf-based store enterprise (S1), to 74.8p/kg throughput for the intensive finishers (F1/F2). Concentrate costs as a proportion of total variable costs were, as would be expected, highest in the intensive finisher (F1/F2) enterprise at around 72%. Concentrates only contributed 32% of the costs on the store-based store enterprise (S2). Forage variable costs were the next most significant item of variable costs. Here the previous position was reversed with costs ranging from around 18% for the S2 enterprises to around 2% for the F1/F2 enterprise.

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<sup>1</sup> All per hectare results ignore the results from the F1/F2 (intensive finishers) category

### 4.7.3 Fixed costs

Fixed costs per kg throughput varied consistently with intensity of system. The most intensive systems (F1/F2) had relatively low fixed costs at 34.8p/kg throughput, while the extensive systems (store production systems, S1 and S2, and extensive finishing, F5) had considerably higher fixed costs at between 70.1p/kg throughput and 86.6p/kg throughput (£438-£558 per forage hectare.) The largest component of fixed costs was labour ranging from around 39% (store-based semi intensive, F4) to around 54% of total fixed costs for the intensive finishers (F1/F2), although the absolute level of labour costs on these intensive systems was lower at 18.6p/kg throughput than any other. The absolute level of labour costs was highest for the extensive systems (both the store production systems, S1 and S2, and the extensive finishing F5) at between 28.9p/kg throughput and 35.2p/kg throughput. The other major fixed cost, rent/rental equivalent, varied with intensity of system ranging from around 8% (intensive finishers, F1/F2) to around 28% of total fixed costs (store-based store producers, S2).

### 4.7.4 Margins

Gross margins per kg throughput ranged from 45.8p/kg throughput (intensive finishers, F1/F2) to 80.5p/kg throughput (store-based store producers, S2). In per forage hectare terms, the range was £414 (extensive finishers, F5) to £577 (calf-based semi intensive finishers, F3).

Margins before overheads were positive for three of the enterprise systems (intensive finishers F1/F2, and calf-based semi intensive finishers, F3), while the margins of the other four systems were negative. Margins before overheads ranged from -9p/kg throughput (-£72 per forage hectare) for the calf-based store producers, S1, to 21.2p/kg throughput (£166 per forage hectare) for the calf-based semi intensive finishers, F3.

Net margins remained positive for the three systems that had returned positive figures prior to the deduction of overheads. They ranged from 13 p/kg throughput (£102 per forage hectare) for the calf-based semi intensive finishers, F3, to -23.1p/kg throughput (-£184 per forage hectare) for calf-based store producers, S1.

#### 4.7.5 Comments on the enterprise system results

These show that there are significant differences between the systems in terms of absolute levels of cost and returns on pence per kg throughput basis, and in terms of the composition of costs and returns. Some of these variations are to be expected from differences in systems (e.g. high concentrate costs in intensive finishers (F1/F2) and high rent/rental equivalent in extensive finishing (F5), both in absolute terms and in terms of the proportion of total expenditure). Other variations, particularly in differences between fixed costs, are not so readily explained, although this may be because of the slower rate of growth seen in the more extensive systems, which leads to lower kilogramme throughput. The results suggest that aggregating systems in discussions about the beef industry can hide important inter-system differences and can be potentially misleading. It is therefore prudent to be cautious when comparing different systems results.

Comparisons are also complicated by the fact that relative performances differ whether expressed per kg throughput or per forage hectare and by the fact that per forage hectare results are not available for some systems. Table 4.2 ranks the different systems. It shows the calf-based semi intensive finishers (F3) performing relatively well and the calf-based store producers (S1) achieving relatively poor results.

**Table 4.2 Ranking of trading enterprises by net margin**

System	Net margin per kg	Rank (net margin per kg)	Net margin per forage hectare	Rank (net margin per forage ha)
F1/F2	5.73	2 <sup>nd</sup>	-	-
F3	13.02	1 <sup>st</sup>	102.04	1 <sup>st</sup>
F4	-12.22	3 <sup>rd</sup>	-86.70	2 <sup>nd</sup>
F5	-18.49	4 <sup>th</sup>	-111.22	3 <sup>rd</sup>
S1	-23.05	6 <sup>th</sup>	-183.50	5 <sup>th</sup>
S2	-21.87	5 <sup>th</sup>	-115.99	4 <sup>th</sup>

#### 4.8 Trading enterprises: regional results

As with the suckler herd sample, trading enterprise results can be analysed by EU region. These are shown in Tables 4.16 to 4.18. Average kilogramme throughput per farm was very similar in the West of England region and the East of England region at

around 23 tonnes each. Average throughput per farm was higher in the North of England region at 27 tonnes. Stocking rates ranged from 1.36 livestock units per forage hectare in the West to 2.03 livestock units per forage hectare in the North.

#### **4.8.1 Output**

Output expressed on a per kg throughput basis were very similar across regions ranging from 126p/kg throughput to 132p/kg throughput. On a per forage hectare basis however, very wide regional differences were apparent from £909 per forage hectare in the West to £1587 per forage hectare in the North. This may be due to 51% of the low output extensive finishers (F5) occurring in the West.

The composition of output was very similar across the regions, with the value of cattle output accounting for 66% of total output in the West and East and 62% in the North. This small difference could be attributed to the higher number of Beef Special Premium bull claims in the North region.

#### **4.8.2 Variable costs**

Variable costs ranged from around 60p/kg throughput (£537 per forage hectare) in the East to around 76p/kg throughput (£915 per forage hectare) in the North. The main element of variable costs was concentrates accounting for around 54% of total variable costs in the West to around 59% in the North. Absolute levels of concentrate cost were also highest in the North at 44.9p/kg throughput.

#### **4.8.3 Fixed costs**

Fixed costs per kg throughput were lowest in the North at 52.6p/kg throughput ranging to 67.2p/kg throughput in the West. On a per forage hectare basis however, the position was reversed with figures of £474 per forage hectare for enterprises in the West and £630 per forage hectare in the North.

Of the major fixed costs, labour was lowest on a per kg throughput basis in the North at 21p/kg throughput compared with 22p/kg throughput in the East and 25p/kg throughput in the West. Rent/rental equivalent on a per kg throughput basis were also

lowest in the North at 10p/kg throughput compared with 14p/kg throughput in the East and 17p/kg throughput in the West.

Again however, on a per forage hectare basis the picture was reversed. Labour costs were highest in the North at £254 per forage hectare compared with £201 per forage hectare in the East and £177 per forage hectare in the West. Rent/rent equivalent were almost identical at around £122 per forage hectare in each of the 3 regions.

#### **4.8.4 Margins**

Average gross margin on a per kg throughput basis was highest in the East at 66p/kg throughput and lowest in the North at 56p/kg throughput. On a per forage hectare basis, average gross margin was highest in the North at £672 per forage hectare and lowest in the West at £440 per forage hectare.

Margin before overheads were positive in the North and East but negative in the West.

After the deduction of overhead costs, net margins only remained positive in the East. They ranged, on a per kg throughput basis from 1p/kg throughput in the East to -18p/kg throughput in the West. On a per forage hectare basis, the range was from £10 per forage hectare in the East to -£124 per forage hectare in the West.

#### **4.8.5 Comment on the regional results**

Differences in stocking rates clearly reflect in the results expressed on a per forage hectare basis. Regional differences can, in part, be explained by differences in the composition of enterprise systems within the regional sample. The West of England sample included 71% of farms in the 3 systems calf-based store producers (S1), store-based store producers (S2) and extensive finishers (F5) whereas this figure was 59% for both the other regions. As was seen in the comparison of enterprise types the more intensive systems had shown better returns at the net margin level.

#### **4.9 Trading enterprises: herd size results**

Tables 4.19 to 4.21 show trading enterprise results by herd size. These size groups are less than 50 animals, 50-99 animals and over 100 animals. All the herd size groups contained a reasonable sample.

Some preliminary differences in the characteristics of the herd size group can be highlighted. Average annual throughput in the largest size group at around 44 tonnes per enterprise, was almost five times that of the smallest herd size group. On a per forage hectare basis, the average annual throughput was highest in the group with between 50 and 100 animals (at 966kg throughput per forage hectare per year) and lowest in the smallest herd size group (at 638kg throughput per forage hectare per year). Average stocking rates were lowest on the smallest herd size at 0.93 livestock units per forage hectare and were almost identical on the two larger groups at 1.75 and 1.78 livestock units per forage hectare.

##### **4.9.1 Output**

The proportion of output accounted for by cattle values was similar across all groups ranging from 64% in the middle group to 66% in the smallest. The total value of output was also very similar across size groups when expressed on a per kg throughput basis, ranging between 125p/kg throughput for the smallest group to 130p/kg throughput for the medium and largest. On a per forage hectare basis however, output was significantly lower in the smallest size group at £800 per forage hectare compared with £1161 per forage hectare in the largest size and £1251 per forage hectare in the medium size group.

##### **4.9.2 Variable costs**

Variable costs varied little between size groups on a per kg throughput basis, as did the structure of variable costs. All size groups recorded concentrate and forage costs together at around 68% of total variable costs. On a per forage hectare basis however, total variable costs were significantly lower in the smallest size group at £398 increasing to £620 in the largest and £627 in the medium respectively.

### 4.9.3 Fixed costs

It is at the level of fixed costs that significant differences between size groups begin to emerge on a per kg throughput basis. Fixed costs were considerably higher for the smallest size group at around 78p/kg throughput compared with levels of around 60p/kg throughput for the middle group and around 55p/kg throughput for the largest. The difference was largely attributable to higher labour costs and a higher rent/rental equivalent in the smallest size group. When expressed on a per forage hectare basis, fixed costs were very similar in the smallest, at £499, and largest size group, £493. Fixed costs were higher in the middle group at £581 per forage hectare.

While absolute levels of labour costs and rent/rental equivalent were higher in the smallest group the composition of fixed costs was similar particularly in the two smaller groups where labour costs comprised 44% of fixed costs. Rent/rental equivalents were identical at 24% in the largest and smallest group and at 23% were similar in the middle size. While labour costs at 41% were lowest in the largest group, their machinery costs were highest at 28%.

### 4.9.4 Margins

Gross margins were very similar for all size groups on a per kg throughput basis but significantly lower for the smallest size group on a forage hectare basis.

Margins before overheads were much lower in the smallest size group on both per kg throughput and per forage hectare basis, reflecting the group's relatively high level of fixed costs and lower level of throughput per forage hectare.

The average net margin was negative for all groups, and it was substantially worse for the smallest group at -31p/kg throughput (-£196 per forage hectare) than for the largest group where net margins were -5p/kg throughput (-£44 per forage hectare).



#### **4.9.5 Comments on the herd size results**

The main features observed from the group comparison are that the smallest group had lower stocking rates, higher fixed cost levels per kg throughput and significantly lower net margin per kg throughput and per forage hectare.

#### **4.10 Trading enterprises: results for top and bottom quartiles**

The sample for only one of the systems surveyed – extensive finishing (F5) – was large enough to allow some analysis of the variability of results between similar herds by focusing on the results of the top and bottom quartiles. In order to analyse the other groups in this way the remaining six enterprise types were amalgamated into three namely:

1. intensive cereal beef finishers (F1) and other intensive finishers (F2)
2. calf-based semi intensive ( F3 ) and store-based semi intensive finishers (F4)
3. calf-based store producers (S1) and store-based store producers (S2)

In the case of intensive cereal beef finishers (F1) and other intensive finishers (F2) the quartiles were selected on net margin per animal basis. The remaining groups were all selected on net margin per forage hectare. Three enterprises were excluded from the calf-based store producers and store-based store producers group as they used no forage hectares. Results for these groups can be found in Tables 4.22 to 4.29.

##### **4.10.1 Intensive cereal beef finishers and other intensive finishers: results for top and bottom quartiles**

Of the four trading systems examined on a per quartile basis, the range between the top and bottom group with regards to total output was least in this group with the top quartile output at 126.7p/kg throughput being 9p/kg throughput greater than the 117.7 p/kg throughput of the bottom quartile.

This additional value of output could be attributed almost entirely to the higher value of cattle output in this top quartile and represented 68% of the output as compared to 64% of the output on the bottom quartile.

Total variable costs at 93.5p/kg throughput in the bottom quartile were significantly higher than the 50.1p/kg throughput figure for the top quartile. At around 70%, concentrate costs as a proportion of total variable costs were very similar. However, in absolute terms, at 65.3p/kg throughput for the bottom quartile, they were 29.6p/kg throughput greater than those in the top quartile.

As was the case with the extensive finishers, fixed costs in the bottom quartile at 49.9p/kg throughput were almost double the 26.4p/kg throughput of those of the top quartile.

Gross margins were positive for both quartiles at 76.2p/kg throughput for the top quartile and 24.2p/kg throughput for the bottom quartile.

Margins in the top quartile remained positive at 49.8p/kg throughput before overheads were deducted and 45.9p/kg throughput after. In the bottom quartile margins were negative, with figures of -25.7p/kg throughput and -33.4p/kg throughput before and after deductions of overheads.

#### **4.10.2 Calf-based semi intensive finishers and store-based semi intensive finishers: results for top and bottom quartiles**

Total output on per kg throughput basis at 113.8p/kg throughput for the bottom quartile was lower than the top quartile figure of 148.2p/kg throughput. On a per forage hectare basis however, their output was higher (£1214 compared with £1096). With the cattle output representing 64% of total output in the bottom quartile this was also greater than the comparative figure of 62% in the top quartile.

Variable costs in the bottom quartile were greater on both per kg throughput and per forage hectare basis, at 73.8p/kg throughput (£787 per forage hectare) compared with 54.8p/kg throughput (£405 per forage hectare). Concentrate costs were higher in the bottom quartile in both relative and absolute terms.

Fixed costs were also higher in the bottom quartile at 74.7p/kg throughput (£797 per forage hectare) compared with 56.9p/kg throughput (£422 per forage hectare) in the top quartile. Labour costs of 32.7p/kg throughput on farms in the bottom quartile represented 44% of fixed costs while the equivalent figure of 19.9 p/kg throughput on those in the top quartile represented 35% of total fixed costs.

Gross margins were positive for both groups ranging from 40p/kg throughput (£427 per forage hectare) in the bottom quartile to 93.4p/kg throughput (£691 per forage hectare) in the top.

Margins before deduction of overheads and net margin after overhead deduction were negative in the bottom quartile at -34.7p/kg throughput (-£370 per forage hectare) and -48.3p/kg throughput (£514 per forage hectare) respectively. The top quartile group returned margins of 36.4p/kg throughput (£269 per forage hectare) before overheads and net margins of 31.6p/kg throughput (£234 per forage hectare) after overheads were deducted.

#### **4.10.3 Extensive finishers: results for top and bottom quartiles.**

Total output expressed on a per kg throughput basis was 30p/kg throughput higher on the top quartile enterprises. Almost 18p/kg throughput of this came from the higher value of cattle sales. The proportion of output from cattle sales was very similar being 64% of the bottom quartile and 63% of the top. On a per forage hectare basis, total output ranged from £1103 in the top quartile to £736 in the bottom quartile.

Variable costs were 18.1p/kg throughput (£39 per forage hectare) higher in the bottom quartile with their forage variable costs and miscellaneous variable costs being significantly higher. Fixed costs in the bottom quartile at 101.9p/kg throughput were almost double the figure of 52.5p/kg throughput for those in the top quartile. The difference was also significant on a per forage hectare basis at £636 and £392 respectively. Labour and machinery costs stand out as been particularly high by comparison on farms in the bottom quartile.

Gross margins in both groups were positive but at 39.7p/kg throughput (£248 per forage hectare), those in the bottom quartile were less than half of the top quartile gross margin of 87.5p/kg throughput (£654 per forage hectare).

Margins in the bottom quartile before the deduction of overheads were negative at -62.2p/kg throughput (-£388 per forage hectare) and net margin after the deduction of overheads fell to -82p/kg throughput (-£512 per forage hectare). However, margins in the top quartile remained positive at 35.1p/kg throughput (£262 per forage hectare) prior to overhead deductions with net margins of 26.8p/kg throughput (£200 per forage hectare). At the net margin stage, this equates to a range of 108.8p/kg throughput (£712 per forage hectare) between the returns of the top and bottom quartiles.

#### **4.10.4 Calf-based store producers and store based store producers: results for top and bottom quartiles**

Total output on a per kg throughput basis at 136.7p/kg throughput in the top quartile group was 25.7p/kg throughput higher than the figure of 111p/kg throughput for the bottom quartile. Measured on a per forage hectare basis however, the bottom quartile total output at £945 was greater than the £887 of the top quartile.

Variable costs were greatest in the bottom quartile on both a per kg throughput basis (74.1p/kg throughput compared to 45.6p/kg throughput) and forage hectare basis (£631 compared to £296). Concentrates were the highest item of expenditure in variable costs in both groups and represented about 50% of the total in the bottom quartile and 36% in the top quartile.

Fixed costs were also significantly higher in the bottom quartile at 90.1p/kg throughput (£767 per forage hectare) when compared to the figure of 57.5p/kg throughput (£373 per forage hectare) for the top.

Gross margins, as with the other groups, were positive at 91p/kg throughput (£591 per forage hectare) for the top quartile and 37p/kg throughput (£314 per forage hectare) in the bottom quartile.

Margins remained positive for the top quartile at 33.7p/kg throughput (£219 per forage hectare) before overheads were deducted with net margins of 23.4p/kg throughput (£152 per forage hectare) after they were deducted.

As with the bottom quartiles in the other groups, margins were negative at -53p/kg throughput (-£452 per forage hectare) before overhead deductions with net margins of -69.5p/kg throughput (-£591 per forage hectare) after overhead deductions.

#### **4.11 Organic farms: results for organic farms**

While there were only five organic farms in the sample, they could all be classified as extensive finishers (F5) and it is of interest to report on their returns. Financial results for the 5 organic enterprises can be found in Table 4.15. Measured on a per kg throughput basis the total value of output on the organic farms at 142.8p/kg throughput was higher than for the average extensive finisher enterprise. The value of cattle output both in absolute terms at 98.9p/kg throughput and as a percentage of total output at 69% was also higher than the comparative figures of 84.2p/kg throughput and 62% for the F5 sample. On a per forage hectare basis, their total output was significantly less at £492 as compared to £816 on the average system, reflecting the lower stocking rates on the organic farms of 1.22 livestock units per forage hectare as compared to 1.42 livestock units per forage hectare for the total enterprise sample.

Total variable costs on the organic farms were lower when measured on either a per kg throughput basis or per forage hectare. The respective figures were 54.9p/kg throughput (£189 per forage hectare) for the organic enterprises as compared to 66.9p/kg throughput (£402 per forage hectare) for total extensive finishers sample. While most items of variable costs were similar there was significantly less use of concentrates on the organic farms 21.6p/kg throughput as compared to 33.3p/kg throughput.

On a per kg throughput basis fixed costs of 103.5p/kg throughput were higher on the organic farms (72.8p/kg throughput for the extensive finishers). On a per forage hectare basis they were lower at £356 (£438 for the extensive finishers).

Gross margins were positive for the organic farms at 87.9p/kg throughput (£303 per forage hectare). These figures can be compared to 68.8p/kg throughput (£414 per forage hectare) for the F5 group.

Margins were negative before overheads at -15.6p/kg throughput (-£54 per forage hectare) with net margins of -29.3p/kg throughput (-£101 per forage hectare) after overheads were deducted. These could be compared with figures of -3.9p/kg throughput (-£24 per forage hectare) and -18.5p/kg throughput (-£111 per forage hectare) for the total sample of extensive finishers.

Of particular note with reference to the organic farms is the contribution of environmental scheme payments which at 12p/kg throughput (£41 per forage hectare) was significantly more than the average for all trading enterprises of 1.4p/kg throughput (£12 per forage hectare).

#### **4.12 General comments on the trading enterprise system**

The analysis of trading enterprise results by system, region and enterprise size are difficult to synthesise into a discrete set of conclusions. Each set of analyses will be influenced by the composition of the sample, such that a systems analysis is influenced by the sample's enterprise system and enterprise size composition, and a size analysis is influenced by the sample's enterprise system and regional composition. Further, the basis upon which results are expressed (per kg throughput or per forage hectare) produce differing impressions about the relative performance of the categories analysed. For example, compared with other regions the West of England sample contains a higher proportion of farms in the groups calf-based store producers (S1), store-based store producers (S2) and extensive finishers (F5). The relatively lower returns from these systems could explain in some part why the lowest returns were observed in this region.

TABLE 4.3 Outputs, costs and margins for suckler herds - all farms & North region

	ALL HERDS		NORTH ENGLAND REGION	
No. of enterprises in sample	90		26	
Suckler cows per herd	48.86		45.58	
Forage ha. per herd	41.23		35.27	
Stocking rate (cows/forage ha.)	1.19		1.29	
<i>Output</i>	<i>£ / cow</i>	<i>£ / for. ha.</i>	<i>£ / cow</i>	<i>£ / for. ha.</i>
Value of calves	294.77	349.33	330.31	426.81
Suckler Cow Premium	124.18	147.16	121.53	157.06
- extensification	25.76	30.52	23.74	30.67
BSP & Slaughter Premium	9.84	11.66	9.40	12.14
less: Replacement cost	50.74	60.14	58.78	75.95
Total Output ( A )	403.81	478.53	426.20	550.73
<i>Variable costs</i>				
Leased-in SCP quota	4.19	4.97	8.34	10.78
Concentrates	34.15	40.47	29.75	38.45
Purchased bulk feeds	10.71	12.69	7.92	10.24
Agistment and keep	0.19	0.23	0.00	0.00
Forage variable costs	54.54	64.63	59.63	77.06
Veterinary and medicine costs	14.59	17.29	13.13	16.97
Contract haulage	1.97	2.34	2.24	2.90
Contract work	3.09	3.66	1.71	2.21
Casual labour	0.78	0.92	0.39	0.50
Miscellaneous costs	21.59	25.58	22.07	28.51
Marketing deductions	1.78	2.11	1.20	1.55
Total variable costs ( B )	147.58	174.89	146.38	189.17
Gross Margin ( A - B ) ( C )	256.23	303.64	279.82	361.56
<i>Fixed Costs</i>				
Labour - suckler herd	88.89	105.34	81.01	104.68
- forage	12.72	15.07	11.67	15.08
(of which : unpaid labour)	72.33	85.71	59.01	76.27
Machinery - suckler herd	39.06	46.29	43.57	56.31
- forage	21.89	25.94	21.73	28.08
Equipment depreciation and repairs	3.59	4.25	3.58	4.63
Buildings & fixtures	12.08	14.32	19.04	24.60
Rent / rental equivalent	107.49	127.38	97.49	125.98
(of which : imputed to owner occupied land)	72.43	85.83	63.45	82.00
Notional rent on purchased quota	12.82	15.19	22.02	28.45
Total fixed costs ( D )	298.54	353.78	300.11	387.81
Margin before overheads ( C - D ) ( E )	-42.31	-50.14	-20.29	-26.25
Environmental scheme payments ( F )	7.23	8.57	2.33	3.01
<i>Overheads</i>				
Labour	13.74	16.29	12.55	16.22
Machinery	8.54	10.12	8.67	11.20
Buildings	1.84	2.18	3.17	4.10
General	47.19	55.93	43.28	55.93
Total overheads ( G )	71.31	84.52	67.67	87.45
Net Margin ( E + F - G )	-106.39	-126.09	-85.63	-110.69

TABLE 4.4 Outputs, costs and margins for suckler herds - West region & East region

	WEST ENGLAND REGION		EAST ENGLAND REGION	
No. of enterprises in sample	34		30	
Suckler cows per herd	51.52		48.69	
Forage ha. per herd	42.75		44.66	
Stocking rate (cows/forage ha.)	1.21		1.09	
<i>Output</i>	<i>£/cow</i>	<i>£/for. ha.</i>	<i>£/cow</i>	<i>£/for. ha.</i>
Value of calves	307.86	371.00	250.23	272.78
Suckler Cow Premium	129.14	155.63	120.36	131.22
- extensification	27.86	33.57	24.87	27.11
BSP & Slaughter Premium	7.41	8.94	13.11	14.29
less: Replacement cost	43.22	52.08	53.25	58.05
Total Output ( A )	429.05	517.06	355.32	387.35
<i>Variable costs</i>				
Leased-in SCP quota	0.52	0.63	5.23	5.71
Concentrates	34.73	41.86	37.01	40.34
Purchased bulk feeds	5.09	6.13	19.72	21.50
Agistment and keep	0.00	0.00	0.58	0.63
Forage variable costs	50.51	60.87	55.23	60.20
Veterinary and medicine costs	14.32	17.26	16.08	17.53
Contract haulage	1.80	2.17	1.95	2.13
Contract work	1.43	1.72	6.19	6.75
Casual labour	0.79	0.95	1.07	1.17
Miscellaneous costs	20.18	24.32	22.88	24.95
Marketing deductions	2.12	2.56	1.85	2.02
Total variable costs ( B )	131.49	158.47	167.79	182.93
Gross Margin ( A - B ) ( C )	297.56	358.59	187.53	204.42
<i>Fixed Costs</i>				
Labour - suckler herd	81.49	98.20	104.17	113.57
- forage	14.53	17.51	11.39	12.42
<b>(of which : unpaid labour)</b>	<b>68.75</b>	<b>82.86</b>	<b>87.41</b>	<b>95.30</b>
Machinery - suckler herd	29.15	35.13	47.28	51.55
- forage	21.94	26.44	21.96	23.94
Equipment depreciation and repairs	2.44	2.95	4.96	5.41
Buildings & fixtures	7.21	8.69	12.28	13.38
Rent / rental equivalent	101.45	122.26	122.84	133.90
<b>(of which : imputed to owner occupied land)</b>	<b>72.84</b>	<b>87.78</b>	<b>79.21</b>	<b>86.36</b>
Notional rent on purchased quota	6.59	7.94	12.83	13.98
Total fixed costs ( D )	264.80	319.12	337.71	368.15
Margin before overheads ( C - D ) ( E )	32.76	39.47	-150.18	-163.73
Environmental scheme payments ( F )	8.05	9.70	10.24	11.16
<i>Overheads</i>				
Labour	13.03	15.70	15.56	16.96
Machinery	7.47	9.00	9.73	10.61
Buildings	0.98	1.18	1.81	1.97
General	46.41	55.93	51.31	55.93
Total overheads ( G )	67.89	81.81	78.41	85.47
Net Margin ( E + F - G )	-27.08	-32.64	-218.35	-238.04



TABLE 4.5 Outputs, costs and margins for suckler herds - top quartile & bottom quartile

	Top Quartile		Bottom Quartile	
No. of enterprises in sample	23		23	
Suckler cows per herd	69.7		36.28	
Forage ha. per herd	49.5		26.57	
Stocking rate (cows/forage ha.)	1.41		1.37	
<i>Output</i>	<i>£/cow</i>	<i>£/for. ha.</i>	<i>£/cow</i>	<i>£/for. ha.</i>
Value of calves	316.84	446.11	303.89	414.99
Suckler Cow Premium	138.16	194.53	104.78	143.08
- extensification	29.39	41.38	7.23	9.87
BSP & Slaughter Premium	9.38	13.20	12.78	17.45
less: Replacement cost	32.83	46.22	66.71	91.09
Total Output ( A )	460.94	649.00	361.97	494.30
<i>Variable costs</i>				
Leased-in SCP quota	0.00	0.00	7.95	10.85
Concentrates	38.10	53.64	46.84	63.97
Purchased bulk feeds	2.62	3.70	25.83	35.27
Agistment and keep	0.52	0.74	0.00	0.00
Forage variable costs	48.17	67.83	61.23	83.62
Veterinary and medicine costs	13.50	19.00	18.44	25.19
Contract haulage	1.32	1.86	2.93	4.01
Contract work	2.00	2.82	3.58	4.89
Casual labour	0.17	0.24	1.04	1.42
Miscellaneous costs	16.25	22.89	30.14	41.16
Marketing deductions	1.75	2.46	3.03	4.14
Total variable costs ( B )	124.40	175.18	201.01	274.52
Gross Margin ( A - B ) ( C )	336.54	473.82	160.96	219.78
<i>Fixed Costs</i>				
Labour - suckler herd	56.97	80.21	160.80	219.56
- forage	11.71	16.48	13.03	17.79
<i>(of which : unpaid labour)</i>	<i>53.89</i>	<i>75.88</i>	<i>111.21</i>	<i>151.85</i>
Machinery - suckler herd	25.44	35.82	74.14	101.24
- forage	18.22	25.66	26.65	36.38
Equipment depreciation and repairs	3.38	4.76	4.69	6.40
Buildings & fixtures	8.25	11.62	18.14	24.77
Rent / rental equivalent	87.86	123.71	97.09	132.59
<i>(of which : imputed to owner occupied land)</i>	<i>53.49</i>	<i>75.32</i>	<i>65.22</i>	<i>89.05</i>
Notional rent on purchased quota	17.57	24.75	25.04	34.19
Total fixed costs ( D )	229.40	323.01	419.58	572.92
Margin before overheads ( C - D ) ( E )	107.14	150.81	-258.62	-353.14
Environmental scheme payments ( F )	3.55	4.99	1.65	2.25
<i>Overheads</i>				
Labour	8.96	12.62	24.10	32.91
Machinery	6.22	8.76	13.98	19.09
Buildings	1.14	1.60	3.15	4.30
General	39.72	55.93	40.96	55.93
Total overheads ( G )	56.04	78.91	82.19	112.23
Net Margin ( E + F - G )	54.65	76.89	-339.16	-463.12

TABLE 4.6 Outputs, costs and margins for suckler herds - 10 - 24 cows and 25 - 49 cows

	10 - 24 Cows		25 - 49 Cows	
No. of enterprises in sample	22		37	
Suckler cows per herd	18.79		34.59	
Forage ha. per herd	16.79		30.9	
Stocking rate (cows/forage ha.)	1.12		1.12	
<i>Output</i>	<i>£/cow</i>	<i>£/for. ha.</i>	<i>£/cow</i>	<i>£/for. ha.</i>
Value of calves	296.90	332.27	289.21	323.73
Suckler Cow Premium	109.24	122.25	111.55	124.87
- extensification	19.74	22.09	26.66	29.85
BSP & Slaughter Premium	15.51	17.35	6.94	7.77
less: Replacement cost	69.29	77.54	48.39	54.17
Total Output ( A )	372.10	416.42	385.97	432.05
<i>Variable costs</i>				
Leased-in SCP quota	7.94	8.88	4.12	4.61
Concentrates	34.53	38.65	25.18	28.18
Purchased bulk feeds	18.28	20.46	7.16	8.01
Agistment and keep	0.00	0.00	0.66	0.73
Forage variable costs	54.71	61.23	52.52	58.79
Veterinary and medicine costs	18.96	21.22	16.17	18.10
Contract haulage	3.67	4.10	1.85	2.07
Contract work	2.53	2.83	3.35	3.75
Casual labour	1.13	1.26	1.14	1.28
Miscellaneous costs	23.48	26.28	22.19	24.84
Marketing deductions	3.77	4.22	1.80	2.01
Total variable costs ( B )	169.00	189.13	136.14	152.37
Gross Margin ( A - B ) ( C )	203.10	227.29	249.83	279.68
<i>Fixed Costs</i>				
Labour - suckler herd	155.67	174.22	100.64	112.66
- forage	16.16	18.09	14.17	15.87
<i>(of which : unpaid labour)</i>	<i>133.33</i>	<i>149.21</i>	<i>109.67</i>	<i>122.76</i>
Machinery - suckler herd	46.92	52.51	41.75	46.73
- forage	25.41	28.44	23.65	26.47
Equipment depreciation and repairs	5.29	5.92	3.54	3.96
Buildings & fixtures	17.78	19.90	9.14	10.24
Rent / rental equivalent	112.29	125.67	102.10	114.29
<i>(of which : imputed to owner occupied land)</i>	<i>79.88</i>	<i>89.40</i>	<i>60.76</i>	<i>68.02</i>
Notional rent on purchased quota	9.21	10.31	3.14	3.51
Total fixed costs ( D )	388.73	435.06	298.13	333.73
Margin before overheads ( C - D ) ( E )	-185.63	-207.77	-48.30	-54.05
Environmental scheme payments ( F )	3.66	4.10	9.47	10.60
<i>Overheads</i>				
Labour	24.76	27.71	16.06	17.97
Machinery	11.49	12.86	10.12	11.32
Buildings	4.34	4.86	1.71	1.91
General	49.98	55.94	49.97	55.93
Total overheads ( G )	90.57	101.37	77.86	87.13
Net Margin ( E + F - G )	-272.54	-305.04	-116.69	-130.58

TABLE 4.7 Outputs, costs and margins for suckler herds - over 50 cows

Over 50 Cows		
No. of enterprises in sample	31	
Suckler cows per herd	87.22	
Forage ha. per herd	70.89	
Stocking rate (cows/forage ha.)	1.23	
<i>Output</i>		
Value of calves	£ / cow 297.08	£ / for. ha. 365.51
Suckler Cow Premium	132.45	162.96
- extensification	26.25	32.29
BSP & Slaughter Premium	10.35	12.73
less: Replacement cost	49.02	60.32
Total Output ( A )	417.11	513.17
<i>Variable costs</i>		
Leased-in SCP quota	3.66	4.50
Concentrates	38.33	47.16
Purchased bulk feeds	11.24	13.82
Agistment and keep	0.00	0.00
Forage variable costs	55.46	68.24
Veterinary and medicine costs	13.17	16.20
Contract haulage	1.77	2.18
Contract work	3.05	3.75
Casual labour	0.55	0.68
Miscellaneous costs	21.01	25.85
Marketing deductions	1.47	1.81
Total variable costs ( B )	149.71	184.19
Gross Margin ( A - B ) ( C )	267.40	328.98
<i>Fixed Costs</i>		
Labour - suckler herd	73.13	89.98
- forage	11.50	14.15
(of which : unpaid labour)	45.34	55.78
Machinery - suckler herd	36.59	45.02
- forage	20.52	25.25
Equipment depreciation and repairs	3.35	4.12
Buildings & fixtures	12.60	15.50
Rent / rental equivalent	109.30	134.48
(of which : imputed to owner occupied land)	76.82	94.51
Notional rent on purchased quota	17.95	22.09
Total fixed costs ( D )	284.94	350.59
Margin before overheads ( C - D ) ( E )	-17.54	-21.61
Environmental scheme payments ( F )	6.72	8.27
<i>Overheads</i>		
Labour	10.96	13.49
Machinery	7.35	9.04
Buildings	1.53	1.88
General	45.46	55.93
Total overheads ( G )	65.30	80.34
Net Margin ( E + F - G )	-76.12	-93.68

TABLE 4.8 Outputs, costs and margins for trading enterprises - all enterprises

No. of enterprises in sample	232		
Animals per enterprise	91.75		
Throughput per enterprise (kgs)	24215.5		
Forage ha. per enterprise	28.14		
Stocking rate (LU / forage ha.)	1.53		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	221.62	83.97	722.60
Beef Special Premium	71.43	27.06	232.91
- extensification	16.82	6.37	54.83
Slaughter Premium	30.56	11.58	99.64
Total Output ( A )	340.43	128.98	1109.98
<i>Variable costs</i>			
Concentrates	99.55	37.72	324.59
Purchased bulk feeds	9.85	3.73	32.13
Agistment and keep	0.11	0.04	0.36
Forage variable costs	20.64	7.82	67.31
Veterinary and medicine costs	10.50	3.98	34.22
Contract haulage	6.02	2.28	19.62
Contract work	2.75	1.04	8.96
Casual labour	0.41	0.16	1.35
Miscellaneous costs	17.04	6.45	55.54
Marketing deductions	10.62	4.02	34.61
Total variable costs ( B )	177.49	67.24	578.69
Gross Margin ( A - B ) ( C )	162.94	61.74	531.29
<i>Fixed Costs</i>			
Labour - trading enterprise	61.23	23.20	199.64
- forage	5.59	2.12	18.23
<i>(of which : unpaid labour)</i>	<b>53.82</b>	<b>20.39</b>	<b>175.48</b>
Machinery - trading enterprise	32.33	12.25	105.40
- forage	9.70	3.68	31.63
Equipment depreciation and repairs	2.68	1.02	8.74
Buildings & fixtures	8.19	3.10	26.69
Rent / rental equivalent	37.38	14.16	121.89
<i>(of which : imputed to owner occupied land)</i>	<b>22.49</b>	<b>8.52</b>	<b>73.31</b>
Total fixed costs ( D )	157.10	59.53	512.22
Margin before overheads ( C - D ) ( E )	5.84	2.21	19.07
Environmental scheme payments ( F )	3.76	1.42	12.26
<i>Overheads</i>			
Labour	8.94	3.39	29.14
Machinery	6.02	2.28	19.62
Buildings	1.24	0.47	4.05
General	17.06	6.46	55.61
Total overheads ( G )	33.26	12.60	108.42
Net Margin ( E + F - G )	-23.66	-8.97	-77.09

TABLE 4.9 Outputs, costs and margins for trading enterprises - system S1

No. of enterprises in sample	28		
Animals per enterprise	86.46		
Throughput per enterprise (kgs)	19107		
Forage ha. per enterprise	24		
Stocking rate (LU / forage ha.)	0.93		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	212.26	96.05	764.67
Beef Special Premium	37.78	17.10	136.14
- extensification	6.64	3.00	23.92
Slaughter Premium	2.63	1.19	9.46
Total Output ( A )	259.31	117.34	934.19
<i>Variable costs</i>			
Concentrates	58.45	26.45	210.58
Purchased bulk feeds	6.89	3.12	24.83
Agistment and keep	0.00	0.00	0.00
Forage variable costs	25.17	11.39	90.67
Veterinary and medicine costs	10.92	4.94	39.33
Contract haulage	2.53	1.15	9.13
Contract work	1.35	0.61	4.88
Casual labour	0.31	0.14	1.13
Miscellaneous costs	11.27	5.10	40.58
Marketing deductions	7.29	3.30	26.25
Total variable costs ( B )	124.18	56.20	447.38
Gross Margin ( A - B ) ( C )	135.13	61.14	486.81
<i>Fixed Costs</i>			
Labour - trading enterprise	59.96	27.13	216.00
- forage	5.59	2.53	20.13
<i>(of which : unpaid labour)</i>	<i>58.13</i>	<i>26.30</i>	<i>209.42</i>
Machinery - trading enterprise	33.07	14.96	119.13
- forage	10.54	4.77	37.96
Equipment depreciation and repairs	1.65	0.75	5.96
Buildings & fixtures	5.45	2.47	19.63
Rent / rental equivalent	38.72	17.52	139.50
<i>(of which : imputed to owner occupied land)</i>	<i>22.17</i>	<i>10.03</i>	<i>79.88</i>
Total fixed costs ( D )	154.98	70.13	558.31
Margin before overheads ( C - D ) ( E )	-19.85	-8.99	-71.50
Environmental scheme payments ( F )	0.40	0.18	1.46
<i>Overheads</i>			
Labour	9.22	4.17	33.21
Machinery	6.04	2.73	21.75
Buildings	0.72	0.32	2.58
General	15.52	7.02	55.92
Total overheads ( G )	31.50	14.24	113.46
Net Margin ( E + F - G )	-50.95	-23.05	-183.50

TABLE 4.10 Outputs, costs and margins for trading enterprises - system S2

No. of enterprises in sample	39		
Animals per enterprise	45.69		
Throughput per enterprise (kgs)	9671.8		
Forage ha. per enterprise	18.26		
Stocking rate (LU / forage ha.)	1.26		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	183.50	86.69	459.15
Beef Special Premium	88.05	41.60	220.32
- extensification	31.08	14.68	77.77
Slaughter Premium	7.51	3.55	18.78
Total Output ( A )	310.14	146.52	776.02
<i>Variable costs</i>			
Concentrates	45.28	21.39	113.31
Purchased bulk feeds	20.38	9.63	50.99
Agistment and keep	0.00	0.00	0.00
Forage variable costs	25.48	12.03	63.75
Veterinary and medicine costs	8.67	4.09	21.69
Contract haulage	3.85	1.82	9.64
Contract work	2.19	1.03	5.48
Casual labour	0.61	0.29	1.53
Miscellaneous costs	19.89	9.40	49.78
Marketing deductions	13.42	6.34	33.57
Total variable costs ( B )	139.77	66.02	349.74
Gross Margin ( A - B ) ( C )	170.37	80.50	426.28
<i>Fixed Costs</i>			
Labour - trading enterprise	67.15	31.72	168.02
- forage	7.35	3.47	18.40
<i>(of which : unpaid labour)</i>	<b>59.23</b>	<b>27.98</b>	<b>148.19</b>
Machinery - trading enterprise	30.38	14.35	76.01
- forage	13.13	6.20	32.86
Equipment depreciation and repairs	4.03	1.90	10.08
Buildings & fixtures	10.90	5.15	27.27
Rent / rental equivalent	50.45	23.83	126.23
<i>(of which : imputed to owner occupied land)</i>	<b>32.35</b>	<b>15.28</b>	<b>80.94</b>
Total fixed costs ( D )	183.39	86.62	458.87
Margin before overheads ( C - D ) ( E )	-13.02	-6.12	-32.59
Environmental scheme payments ( F )	7.20	3.40	18.02
<i>Overheads</i>			
Labour	9.91	4.68	24.81
Machinery	6.57	3.10	16.43
Buildings	1.71	0.81	4.27
General	22.35	10.56	55.91
Total overheads ( G )	40.54	19.15	101.42
Net Margin ( E + F - G )	-46.36	-21.87	-115.99

TABLE 4.11 Outputs, costs and margins for trading enterprises - systems F1 and F2

No. of enterprises in sample	46		
Animals per enterprise	94.96		
Throughput per enterprise (kgs)	35024		
Forage ha. per enterprise	N / A		
Stocking rate (LU / forage ha.)	N / A		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	299.81	81.29	N / A
Beef Special Premium	97.45	26.43	N / A
- extensification	5.16	1.40	N / A
Slaughter Premium	42.33	11.48	N / A
Total Output ( A )	444.75	120.60	N / A
<i>Variable costs</i>			
Concentrates	197.40	53.52	N / A
Purchased bulk feeds	12.49	3.39	N / A
Agistment and keep	0.00	0.00	N / A
Forage variable costs	6.76	1.83	N / A
Veterinary and medicine costs	14.03	3.80	N / A
Contract haulage	7.12	1.93	N / A
Contract work	2.16	0.59	N / A
Casual labour	0.12	0.03	N / A
Miscellaneous costs	24.08	6.53	N / A
Marketing deductions	11.64	3.15	N / A
Total variable costs ( B )	275.80	74.77	N / A
Gross Margin ( A - B ) ( C )	168.95	45.83	N / A
<i>Fixed Costs</i>			
Labour - trading enterprise	66.94	18.15	N / A
- forage	1.76	0.48	N / A
<i>(of which : unpaid labour)</i>	<b>51.83</b>	<b>14.05</b>	N / A
Machinery - trading enterprise	34.19	9.27	N / A
- forage	3.39	0.92	N / A
Equipment depreciation and repairs	3.91	1.06	N / A
Buildings & fixtures	8.09	2.19	N / A
Rent / rental equivalent	9.91	2.69	N / A
<i>(of which : imputed to owner occupied land)</i>	<b>6.72</b>	<b>1.82</b>	N / A
Total fixed costs ( D )	128.19	34.76	N / A
Margin before overheads ( C - D ) ( E )	40.76	11.07	N / A
Environmental scheme payments ( F )	0.07	0.02	N / A
<i>Overheads</i>			
Labour	8.91	2.42	N / A
Machinery	5.59	1.52	N / A
Buildings	1.21	0.33	N / A
General	4.03	1.09	N / A
Total overheads ( G )	19.74	5.36	N / A
Net Margin ( E + F - G )	21.09	5.73	N / A

TABLE 4.12 Outputs, costs and margins for trading enterprises - system F3

No. of enterprises in sample	13		
Animals per enterprise	146.85		
Throughput per enterprise (kgs)	36720.8		
Forage ha. per enterprise	46.85		
Stocking rate (LU / forage ha.)	1.59		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	224.20	89.66	702.75
Beef Special Premium	66.82	26.72	209.41
- extensification	23.45	9.38	73.50
Slaughter Premium	20.25	8.10	63.48
Total Output ( A )	334.72	133.86	1049.14
<i>Variable costs</i>			
Concentrates	96.53	38.60	302.56
Purchased bulk feeds	3.72	1.49	11.68
Agistment and keep	0.00	0.00	0.00
Forage variable costs	17.80	7.12	55.80
Veterinary and medicine costs	11.15	4.46	34.96
Contract haulage	2.17	0.87	6.81
Contract work	2.84	1.14	8.90
Casual labour	0.00	0.00	0.00
Miscellaneous costs	9.73	3.89	30.50
Marketing deductions	6.83	2.73	21.41
Total variable costs ( B )	150.77	60.30	472.62
Gross Margin ( A - B ) ( C )	183.95	73.56	576.52
<i>Fixed Costs</i>			
Labour - trading enterprise	50.80	20.32	159.23
- forage	4.45	1.78	13.94
<b>(of which : unpaid labour)</b>	<b>38.50</b>	<b>15.40</b>	<b>120.68</b>
Machinery - trading enterprise	24.90	9.96	78.06
- forage	7.66	3.06	24.01
Equipment depreciation and repairs	1.33	0.53	4.18
Buildings & fixtures	9.12	3.65	28.58
Rent / rental equivalent	32.77	13.11	102.73
<b>(of which : imputed to owner occupied land)</b>	<b>19.23</b>	<b>7.69</b>	<b>60.28</b>
Total fixed costs ( D )	131.03	52.41	410.73
Margin before overheads ( C - D ) ( E )	52.92	21.15	165.79
Environmental scheme payments ( F )	11.17	4.47	35.01
<i>Overheads</i>			
Labour	7.44	2.98	23.33
Machinery	5.03	2.01	15.75
Buildings	1.21	0.48	3.78
General	17.83	7.13	55.90
Total overheads ( G )	31.51	12.60	98.76
Net Margin ( E + F - G )	32.58	13.02	102.04



TABLE 4.13 Outputs, costs and margins for trading enterprises - system F4

No. of enterprises in sample	24		
Animals per enterprise	85.67		
Throughput per enterprise (kgs)	21506.4		
Forage ha. per enterprise	30.29		
Stocking rate (LU / forage ha.)	1.58		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	179.76	71.61	508.42
Beef Special Premium	70.47	28.07	199.34
- extensification	21.67	8.63	61.31
Slaughter Premium	35.98	14.33	101.75
Total Output ( A )	307.88	122.64	870.82
<i>Variable costs</i>			
Concentrates	73.56	29.30	208.06
Purchased bulk feeds	11.58	4.61	32.75
Agistment and keep	1.09	0.43	3.07
Forage variable costs	27.41	10.92	77.52
Veterinary and medicine costs	8.84	3.52	24.99
Contract haulage	9.84	3.92	27.83
Contract work	3.19	1.27	9.01
Casual labour	0.15	0.06	0.43
Miscellaneous costs	16.06	6.40	45.43
Marketing deductions	9.30	3.71	26.31
Total variable costs ( B )	161.02	64.14	455.40
Gross Margin ( A - B ) ( C )	146.86	58.50	415.42
<i>Fixed Costs</i>			
Labour - trading enterprise	53.23	21.20	150.54
- forage	4.52	1.80	12.78
<i>(of which : unpaid labour)</i>	<i>50.02</i>	<i>19.92</i>	<i>141.47</i>
Machinery - trading enterprise	24.68	9.83	69.79
- forage	7.58	3.02	21.43
Equipment depreciation and repairs	2.75	1.10	7.79
Buildings & fixtures	11.68	4.65	33.05
Rent / rental equivalent	42.59	16.97	120.47
<i>(of which : imputed to owner occupied land)</i>	<i>26.35</i>	<i>10.49</i>	<i>74.51</i>
Total fixed costs ( D )	147.03	58.57	415.85
Margin before overheads ( C - D ) ( E )	-0.17	-0.07	-0.43
Environmental scheme payments ( F )	1.90	0.76	5.38
<i>Overheads</i>			
Labour	7.55	3.01	21.36
Machinery	4.48	1.79	12.68
Buildings	1.59	0.63	4.49
General	18.78	7.48	53.12
Total overheads ( G )	32.40	12.91	91.65
Net Margin ( E + F - G )	-30.67	-12.22	-86.70

TABLE 4.14 Outputs, costs and margins for trading enterprises - system F5

No. of enterprises in sample	82		
Animals per enterprise	106.7		
Throughput per enterprise (kgs)	25624		
Forage ha. per enterprise	42.61		
Stocking rate (LU / forage ha.)	1.42		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	202.23	84.21	506.41
Beef Special Premium	65.60	27.32	164.26
- extensification	19.94	8.30	49.94
Slaughter Premium	38.09	15.86	95.38
Total Output ( A )	325.86	135.69	815.99
<i>Variable costs</i>			
Concentrates	79.92	33.28	200.12
Purchased bulk feeds	8.16	3.40	20.44
Agistment and keep	0.01	0.00	0.02
Forage variable costs	24.36	10.14	61.00
Veterinary and medicine costs	9.22	3.84	23.09
Contract haulage	6.82	2.84	17.09
Contract work	3.40	1.42	8.52
Casual labour	0.70	0.29	1.76
Miscellaneous costs	16.35	6.81	40.95
Marketing deductions	11.60	4.83	29.05
Total variable costs ( B )	160.54	66.85	402.04
Gross Margin ( A - B ) ( C )	165.32	68.84	413.95
<i>Fixed Costs</i>			
Labour - trading enterprise	61.68	25.68	154.45
- forage	7.66	3.19	19.17
<b>(of which : unpaid labour)</b>	<b>56.77</b>	<b>23.64</b>	<b>142.15</b>
Machinery - trading enterprise	35.00	14.57	87.63
- forage	12.87	5.36	32.22
Equipment depreciation and repairs	2.35	0.98	5.89
Buildings & fixtures	7.40	3.08	18.54
Rent / rental equivalent	47.84	19.92	119.81
<b>(of which : imputed to owner occupied land)</b>	<b>28.24</b>	<b>11.76</b>	<b>70.71</b>
Total fixed costs ( D )	174.80	72.78	437.71
Margin before overheads ( C - D ) ( E )	-9.48	-3.94	-23.76
Environmental scheme payments ( F )	4.64	1.93	11.62
<i>Overheads</i>			
Labour	9.33	3.89	23.37
Machinery	6.67	2.78	16.71
Buildings	1.23	0.51	3.07
General	22.33	9.30	55.93
Total overheads ( G )	39.56	16.48	99.08
Net Margin ( E + F - G )	-44.40	-18.49	-111.22

TABLE 4.15 Outputs, costs and margins for trading enterprises - organic systems

No. of enterprises in sample	5		
Animals per enterprise	97.00		
Throughput per enterprise (kgs)	17909		
Forage ha. per enterprise	52.00		
Stocking rate (LU / forage ha.)	1.22		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	182.57	98.88	340.56
Beef Special Premium	44.83	24.29	83.64
- extensification	12.89	6.98	24.05
Slaughter Premium	23.30	12.62	43.46
Total Output ( A )	263.59	142.77	491.71
<i>Variable costs</i>			
Concentrates	39.81	21.56	74.27
Purchased bulk feeds	13.64	7.39	25.44
Agistment and keep	0.00	0.00	0.00
Forage variable costs	18.04	9.77	33.65
Veterinary and medicine costs	5.18	2.80	9.65
Contract haulage	5.98	3.24	11.15
Contract work	0.52	0.28	0.96
Casual labour	0.55	0.30	1.02
Miscellaneous costs	9.01	4.88	16.81
Marketing deductions	8.65	4.68	16.13
Total variable costs ( B )	101.38	54.90	189.08
Gross Margin ( A - B ) ( C )	162.21	87.87	302.63
<i>Fixed Costs</i>			
Labour - trading enterprise	66.22	35.86	123.52
- forage	8.55	4.63	15.94
<i>(of which : unpaid labour)</i>	<i>37.46</i>	<i>20.29</i>	<i>69.88</i>
Machinery - trading enterprise	48.42	26.23	90.33
- forage	13.75	7.45	25.65
Equipment depreciation and repairs	1.48	0.80	2.77
Buildings & fixtures	0.95	0.51	1.77
Rent / rental equivalent	51.66	27.98	96.37
<i>(of which : imputed to owner occupied land)</i>	<i>29.14</i>	<i>15.79</i>	<i>54.37</i>
Total fixed costs ( D )	191.03	103.46	356.35
Margin before overheads ( C - D ) ( E )	-28.82	-15.59	-53.72
Environmental scheme payments ( F )	22.20	12.02	41.40
<i>Overheads</i>			
Labour	9.39	5.09	17.52
Machinery	8.01	4.34	14.94
Buildings	0.11	0.06	0.21
General	30.02	16.26	56.00
Total overheads ( G )	47.53	25.75	88.67
Net Margin ( E + F - G )	-54.15	-29.32	-100.99

**TABLE 4.16 Outputs, costs and margins for trading enterprises - North region**

No. of enterprises in sample	59		
Animals per enterprise	97.37		
Throughput per enterprise (kgs)	26999.5		
Forage ha. per enterprise	22.53		
Stocking rate (LU / forage ha.)	2.03		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	229.33	82.71	991.12
Beef Special Premium	87.36	31.50	377.54
- extensification	17.36	6.26	75.01
Slaughter Premium	33.28	12.00	143.81
Total Output ( A )	367.33	132.47	1587.48
<i>Variable costs</i>			
Concentrates	124.45	44.88	537.86
Purchased bulk feeds	12.66	4.57	54.73
Agistment and keep	0.18	0.07	0.80
Forage variable costs	18.38	6.63	79.45
Veterinary and medicine costs	13.65	4.92	58.99
Contract haulage	4.65	1.68	20.11
Contract work	2.73	0.99	11.81
Casual labour	0.54	0.20	2.35
Miscellaneous costs	22.61	8.16	97.74
Marketing deductions	11.90	4.29	51.44
Total variable costs ( B )	211.75	76.39	915.28
Gross Margin ( A - B ) ( C )	155.58	56.08	672.20
<i>Fixed Costs</i>			
Labour - trading enterprise	58.83	21.22	254.24
- forage	4.11	1.48	17.75
<b>(of which : unpaid labour)</b>	<b>55.21</b>	<b>19.91</b>	<b>238.62</b>
Machinery - trading enterprise	35.29	12.73	152.51
- forage	6.90	2.49	29.83
Equipment depreciation and repairs	3.08	1.11	13.32
Buildings & fixtures	9.36	3.37	40.43
Rent / rental equivalent	28.17	10.16	121.75
<b>(of which : imputed to owner occupied land)</b>	<b>16.58</b>	<b>5.98</b>	<b>71.64</b>
Total fixed costs ( D )	145.74	52.56	629.83
Margin before overheads ( C - D ) ( E )	9.84	3.52	42.37
Environmental scheme payments ( F )	0.32	0.11	1.38
<i>Overheads</i>			
Labour	8.28	2.99	35.77
Machinery	6.08	2.19	26.28
Buildings	1.38	0.50	5.95
General	12.94	4.67	55.93
Total overheads ( G )	28.68	10.35	123.93
Net Margin ( E + F - G )	-18.52	-6.72	-80.18

TABLE 4.17 Outputs, costs and margins for trading enterprises - West region

No. of enterprises in sample	103		
Animals per enterprise	94.16		
Throughput per enterprise (kgs)	22961.5		
Forage ha. per enterprise	32.56		
Stocking rate (LU / forage ha.)	1.36		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	207.71	85.18	600.68
Beef Special Premium	64.57	26.48	186.70
- extensification	15.13	6.20	43.77
Slaughter Premium	26.92	11.04	77.86
Total Output ( A )	314.33	128.90	909.01
<i>Variable costs</i>			
Concentrates	87.57	35.91	253.26
Purchased bulk feeds	6.68	2.74	19.32
Agistment and keep	0.01	0.00	0.03
Forage variable costs	23.21	9.52	67.11
Veterinary and medicine costs	10.67	4.38	30.87
Contract haulage	5.81	2.38	16.80
Contract work	2.26	0.93	6.54
Casual labour	0.17	0.07	0.49
Miscellaneous costs	15.72	6.45	45.45
Marketing deductions	9.91	4.06	28.65
Total variable costs ( B )	162.01	66.44	468.52
Gross Margin ( A - B ) ( C )	152.32	62.46	440.49
<i>Fixed Costs</i>			
Labour - trading enterprise	61.28	25.13	177.21
- forage	7.08	2.90	20.49
<i>(of which : unpaid labour)</i>	<i>52.15</i>	<i>21.38</i>	<i>150.80</i>
Machinery - trading enterprise	30.90	12.67	89.37
- forage	12.63	5.18	36.52
Equipment depreciation and repairs	1.71	0.70	4.94
Buildings & fixtures	8.07	3.31	23.34
Rent / rental equivalent	42.10	17.26	121.74
<i>(of which : imputed to owner occupied land)</i>	<i>24.41</i>	<i>10.01</i>	<i>70.58</i>
Total fixed costs ( D )	163.77	67.15	473.61
Margin before overheads ( C - D ) ( E )	-11.45	-4.69	-33.12
Environmental scheme payments ( F )	4.68	1.92	13.54
<i>Overheads</i>			
Labour	9.27	3.80	26.81
Machinery	6.17	2.53	17.84
Buildings	1.30	0.53	3.75
General	19.34	7.93	55.93
Total overheads ( G )	36.08	14.79	104.33
Net Margin ( E + F - G )	-42.85	-17.56	-123.91

TABLE 4.18 Outputs, costs and margins for trading enterprises - East region

No. of enterprises in sample	70		
Animals per enterprise	83.46		
Throughput per enterprise (kgs)	23714.1		
Forage ha. per enterprise	26.36		
Stocking rate (LU / forage ha.)	2.03		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	237.14	83.46	750.83
Beef Special Premium	67.18	23.65	212.70
- extensification	19.06	6.70	60.32
Slaughter Premium	33.93	11.94	107.44
Total Output ( A )	357.31	125.75	1131.29
<i>Variable costs</i>			
Concentrates	94.99	33.43	300.76
Purchased bulk feeds	12.38	4.36	39.19
Agistment and keep	0.20	0.07	0.64
Forage variable costs	18.60	6.54	58.88
Veterinary and medicine costs	7.09	2.50	22.46
Contract haulage	7.72	2.72	24.43
Contract work	3.55	1.25	11.23
Casual labour	0.67	0.24	2.12
Miscellaneous costs	13.74	4.84	43.51
Marketing deductions	10.54	3.71	33.38
Total variable costs ( B )	169.48	59.66	536.60
Gross Margin ( A - B ) ( C )	187.83	66.09	594.69
<i>Fixed Costs</i>			
Labour - trading enterprise	63.52	22.35	201.10
- forage	4.58	1.61	14.49
<i>(of which : unpaid labour)</i>	<i>55.25</i>	<i>19.44</i>	<i>174.92</i>
Machinery - trading enterprise	31.76	11.18	100.57
- forage	7.61	2.68	24.09
Equipment depreciation and repairs	3.91	1.37	12.37
Buildings & fixtures	7.23	2.54	22.88
Rent / rental equivalent	38.61	13.59	122.23
<i>(of which : imputed to owner occupied land)</i>	<i>25.13</i>	<i>8.84</i>	<i>79.55</i>
Total fixed costs ( D )	157.22	55.32	497.73
Margin before overheads ( C - D ) ( E )	30.61	10.77	96.96
Environmental scheme payments ( F )	5.58	1.97	17.68
<i>Overheads</i>			
Labour	9.03	3.18	28.60
Machinery	5.68	2.00	17.98
Buildings	1.01	0.35	3.19
General	17.31	6.09	54.82
Total overheads ( G )	33.03	11.62	104.59
Net Margin ( E + F - G )	3.16	1.12	10.05

TABLE 4.19 Outputs, costs and margins for trading enterprises - 20 - 49 cattle

No. of enterprises in sample	88		
Animals per enterprise	32.72		
Throughput per enterprise (kgs)	9113.7		
Forage ha. per enterprise	14.28		
Stocking rate (LU / forage ha.)	0.93		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	229.58	82.43	526.05
Beef Special Premium	72.86	26.16	166.94
- extensification	16.72	6.00	38.30
Slaughter Premium	29.89	10.73	68.49
Total Output ( A )	349.05	125.32	799.78
<i>Variable costs</i>			
Concentrates	89.76	32.23	205.67
Purchased bulk feeds	6.88	2.47	15.76
Agistment and keep	0.37	0.13	0.84
Forage variable costs	28.39	10.19	65.06
Veterinary and medicine costs	8.40	3.02	19.26
Contract haulage	6.33	2.27	14.50
Contract work	3.79	1.36	8.68
Casual labour	1.50	0.54	3.43
Miscellaneous costs	15.34	5.51	35.15
Marketing deductions	12.99	4.66	29.76
Total variable costs ( B )	173.75	62.38	398.11
Gross Margin ( A - B ) ( C )	175.30	62.94	401.67
<i>Fixed Costs</i>			
Labour - trading enterprise	88.08	31.62	201.82
- forage	7.95	2.85	18.21
<i>(of which : unpaid labour)</i>	<b>83.89</b>	<b>30.12</b>	<b>192.23</b>
Machinery - trading enterprise	40.53	14.55	92.86
- forage	13.81	4.96	31.65
Equipment depreciation and repairs	4.52	1.62	10.36
Buildings & fixtures	10.94	3.93	25.07
Rent / rental equivalent	51.77	18.59	118.63
<i>(of which : imputed to owner occupied land)</i>	<b>36.34</b>	<b>13.05</b>	<b>83.26</b>
Total fixed costs ( D )	217.60	78.12	498.60
Margin before overheads ( C - D ) ( E )	-42.30	-15.18	-96.93
Environmental scheme payments ( F )	4.40	1.58	10.08
<i>Overheads</i>			
Labour	13.14	4.72	30.11
Machinery	8.10	2.91	18.56
Buildings	2.02	0.72	4.62
General	24.42	8.77	55.95
Total overheads ( G )	47.68	17.12	109.24
Net Margin ( E + F - G )	-85.58	-30.72	-196.09

TABLE 4.20 Outputs, costs and margins for trading enterprises - 50 - 99 cattle

No. of enterprises in sample	64		
Animals per enterprise	73.09		
Throughput per enterprise (kgs)	20212.7		
Forage ha. per enterprise	20.92		
Stocking rate (LU / forage ha.)	1.75		
<i>Output</i>			
Value of cattle	£ / animal	pence / kg	£ / for. ha.
Beef Special Premium	228.47	82.62	798.23
- extensification	78.22	28.29	273.32
Slaughter Premium	18.60	6.72	65.00
Total Output ( A )	32.89	11.89	114.91
	358.18	129.52	1251.46
<i>Variable costs</i>			
Concentrates	102.22	36.96	357.12
Purchased bulk feeds	10.55	3.81	36.85
Agistment and keep	0.01	0.00	0.05
Forage variable costs	19.03	6.88	66.49
Veterinary and medicine costs	8.88	3.21	31.02
Contract haulage	6.87	2.48	24.00
Contract work	1.41	0.51	4.92
Casual labour	0.34	0.12	1.20
Miscellaneous costs	17.79	6.43	62.14
Marketing deductions	12.46	4.51	43.55
Total variable costs ( B )	179.56	64.91	627.34
Gross Margin ( A - B ) ( C )	178.62	64.61	624.12
<i>Fixed Costs</i>			
Labour - trading enterprise	68.12	24.63	238.00
- forage	5.32	1.92	18.59
<i>(of which : unpaid labour)</i>	<b>58.37</b>	<b>21.11</b>	<b>203.92</b>
Machinery - trading enterprise	34.87	12.61	121.85
- forage	7.62	2.76	26.63
Equipment depreciation and repairs	2.90	1.05	10.13
Buildings & fixtures	9.54	3.45	33.32
Rent / rental equivalent	38.04	13.75	132.89
<i>(of which : imputed to owner occupied land)</i>	<b>24.59</b>	<b>8.89</b>	<b>85.90</b>
Total fixed costs ( D )	166.41	60.17	581.41
Margin before overheads ( C - D ) ( E )	12.21	4.44	42.71
Environmental scheme payments ( F )	3.67	1.33	12.81
<i>Overheads</i>			
Labour	9.84	3.56	34.37
Machinery	6.27	2.27	21.89
Buildings	1.37	0.49	4.78
General	16.01	5.79	55.93
Total overheads ( G )	33.49	12.11	116.97
Net Margin ( E + F - G )	-17.61	-6.34	-61.45



TABLE 4.21 Outputs, costs and margins for trading enterprises - over 100 cattle

No. of enterprises in sample	80		
Animals per enterprise	171.6		
Throughput per enterprise (kgs)	44029.6		
Forage ha. per enterprise	49.15		
Stocking rate (LU / forage ha.)	1.78		
<i>Output</i>			
Value of cattle	£ / animal	pence / kg	£ / for. ha.
Beef Special Premium	217.63	84.82	759.84
- extensification	68.82	26.82	240.26
Slaughter Premium	16.23	6.32	56.64
Total Output ( A )	29.90	11.65	104.39
	332.58	129.61	1161.13
<i>Variable costs</i>			
Concentrates	100.72	39.25	351.64
Purchased bulk feeds	10.25	4.00	35.79
Agistment and keep	0.08	0.03	0.28
Forage variable costs	19.56	7.62	68.30
Veterinary and medicine costs	11.47	4.47	40.06
Contract haulage	5.66	2.21	19.78
Contract work	2.97	1.16	10.38
Casual labour	0.21	0.08	0.73
Miscellaneous costs	17.13	6.68	59.82
Marketing deductions	9.49	3.70	33.14
Total variable costs ( B )	177.54	69.20	619.92
Gross Margin ( A - B ) ( C )	155.04	60.41	541.21
<i>Fixed Costs</i>			
Labour - trading enterprise	53.25	20.75	185.92
- forage	5.19	2.02	18.11
<i>(of which : unpaid labour)</i>	<b>45.97</b>	<b>17.92</b>	<b>160.51</b>
Machinery - trading enterprise	29.74	11.59	103.83
- forage	9.55	3.72	33.35
Equipment depreciation and repairs	2.22	0.87	7.75
Buildings & fixtures	7.14	2.78	24.94
Rent / rental equivalent	34.14	13.30	119.19
<i>(of which : imputed to owner occupied land)</i>	<b>18.86</b>	<b>7.35</b>	<b>65.86</b>
Total fixed costs ( D )	141.23	55.03	493.09
Margin before overheads ( C - D ) ( E )	13.81	5.38	48.12
Environmental scheme payments ( F )	3.65	1.42	12.76
<i>Overheads</i>			
Labour	7.76	3.02	27.08
Machinery	5.49	2.14	19.17
Buildings	1.03	0.40	3.60
General	15.87	6.18	55.40
Total overheads ( G )	30.15	11.74	105.25
Net Margin ( E + F - G )	-12.69	-4.94	-44.37

TABLE 4.22 Outputs, costs and margins for trading enterprises - system F1 / F2 top quartile

No. of enterprises in sample	11		
Animals per enterprise	50.73		
Throughput per enterprise (kgs)	22843.3		
Forage ha. per enterprise	N / A		
Stocking rate (LU / forage ha.)	N / A		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	388.41	86.26	N / A
Beef Special Premium	117.30	26.05	N / A
- extensification	9.89	2.20	N / A
Slaughter Premium	54.72	12.15	N / A
Total Output ( A )	570.32	126.66	N / A
<i>Variable costs</i>			
Concentrates	160.54	35.65	N / A
Purchased bulk feeds	11.91	2.64	N / A
Agistment and keep	0.00	0.00	N / A
Forage variable costs	5.26	1.17	N / A
Veterinary and medicine costs	6.07	1.35	N / A
Contract haulage	7.00	1.55	N / A
Contract work	3.80	0.84	N / A
Casual labour	0.00	0.00	N / A
Miscellaneous costs	16.22	3.60	N / A
Marketing deductions	16.62	3.69	N / A
Total variable costs ( B )	227.42	50.49	N / A
Gross Margin ( A - B ) ( C )	342.90	76.17	N / A
<i>Fixed Costs</i>			
Labour - trading enterprise	63.16	14.03	N / A
- forage	0.59	0.13	N / A
<i>(of which : unpaid labour)</i>	<b>33.06</b>	<b>7.34</b>	N / A
Machinery - trading enterprise	35.13	7.80	N / A
- forage	1.18	0.26	N / A
Equipment depreciation and repairs	3.86	0.86	N / A
Buildings & fixtures	9.25	2.05	N / A
Rent / rental equivalent	5.70	1.27	N / A
<i>(of which : imputed to owner occupied land)</i>	<b>2.74</b>	<b>0.61</b>	N / A
Total fixed costs ( D )	118.87	26.40	N / A
Margin before overheads ( C - D ) ( E )	224.03	49.77	N / A
Environmental scheme payments ( F )	0.00	0.00	N / A
<i>Overheads</i>			
Labour	8.71	1.93	N / A
Machinery	4.71	1.05	N / A
Buildings	1.42	0.32	N / A
General	2.46	0.55	N / A
Total overheads ( G )	17.30	3.85	N / A
Net Margin ( E + F - G )	206.73	45.92	N / A

TABLE 4.23 Outputs, costs and margins for trading enterprises - system F1 / F2 bottom quartile

No. of enterprises in sample	11		
Animals per enterprise	114.91		
Throughput per enterprise (kgs)	35504		
Forage ha. per enterprise	N / A		
Stocking rate (LU / forage ha.)	N / A		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	233.18	75.47	N / A
Beef Special Premium	90.74	29.37	N / A
- extensification	1.33	0.43	N / A
Slaughter Premium	38.32	12.40	N / A
Total Output ( A )	363.57	117.67	N / A
<i>Variable costs</i>			
Concentrates	201.64	65.26	N / A
Purchased bulk feeds	11.10	3.59	N / A
Agistment and keep	0.00	0.00	N / A
Forage variable costs	9.83	3.18	N / A
Veterinary and medicine costs	21.60	6.99	N / A
Contract haulage	6.47	2.09	N / A
Contract work	3.66	1.19	N / A
Casual labour	0.22	0.07	N / A
Miscellaneous costs	26.32	8.52	N / A
Marketing deductions	8.13	2.63	N / A
Total variable costs ( B )	288.97	93.52	N / A
Gross Margin ( A - B ) ( C )	74.60	24.15	N / A
<i>Fixed Costs</i>			
Labour - trading enterprise	80.06	25.91	N / A
- forage	3.59	1.16	N / A
<i>(of which : unpaid labour)</i>	<i>68.18</i>	<i>22.07</i>	<i>N / A</i>
Machinery - trading enterprise	34.60	11.20	N / A
- forage	7.40	2.39	N / A
Equipment depreciation and repairs	3.20	1.04	N / A
Buildings & fixtures	13.72	4.44	N / A
Rent / rental equivalent	11.54	3.73	N / A
<i>(of which : imputed to owner occupied land)</i>	<i>7.92</i>	<i>2.56</i>	<i>N / A</i>
Total fixed costs ( D )	154.11	49.87	N / A
Margin before overheads ( C - D ) ( E )	-79.51	-25.72	N / A
Environmental scheme payments ( F )	0.00	0.00	N / A
<i>Overheads</i>			
Labour	10.89	3.52	N / A
Machinery	6.50	2.10	N / A
Buildings	2.11	0.68	N / A
General	4.29	1.39	N / A
Total overheads ( G )	23.79	7.69	N / A
Net Margin ( E + F - G )	-103.30	-33.41	N / A

TABLE 4.24 Outputs, costs and margins for trading enterprises - system F3 / F4 top quartile

No. of enterprises in sample	9		
Animals per enterprise	129.44		
Throughput per enterprise (kgs)	33467.3		
Forage ha. per enterprise	45.22		
Stocking rate (LU / forage ha.)	1.47		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	237.09	91.70	678.66
Beef Special Premium	80.53	31.15	230.52
- extensification	38.36	14.84	109.80
Slaughter Premium	27.06	10.47	77.47
Total Output ( A )	383.04	148.16	1096.45
<i>Variable costs</i>			
Concentrates	73.57	28.45	210.59
Purchased bulk feeds	1.99	0.77	5.71
Agistment and keep	0.00	0.00	0.00
Forage variable costs	24.10	9.32	68.97
Veterinary and medicine costs	9.37	3.62	26.82
Contract haulage	3.43	1.33	9.82
Contract work	6.10	2.36	17.45
Casual labour	0.00	0.00	0.00
Miscellaneous costs	16.94	6.55	48.50
Marketing deductions	6.11	2.36	17.49
Total variable costs ( B )	141.61	54.76	405.35
Gross Margin ( A - B ) ( C )	241.43	93.40	691.10
<i>Fixed Costs</i>			
Labour - trading enterprise	46.00	17.79	131.67
- forage	5.53	2.14	15.83
<i>(of which : unpaid labour)</i>	<i>29.37</i>	<i>11.36</i>	<i>84.08</i>
Machinery - trading enterprise	26.07	10.08	74.61
- forage	8.68	3.36	24.86
Equipment depreciation and repairs	1.40	0.54	4.00
Buildings & fixtures	12.85	4.97	36.78
Rent / rental equivalent	46.81	18.10	133.99
<i>(of which : imputed to owner occupied land)</i>	<i>41.06</i>	<i>15.88</i>	<i>117.54</i>
Total fixed costs ( D )	147.34	56.98	421.74
Margin before overheads ( C - D ) ( E )	94.09	36.42	269.36
Environmental scheme payments ( F )	20.59	7.96	58.93
<i>Overheads</i>			
Labour	6.91	2.67	19.77
Machinery	4.91	1.90	14.04
Buildings	1.64	0.63	4.69
General	19.51	7.55	55.86
Total overheads ( G )	32.97	12.75	94.36
Net Margin ( E + F - G )	81.71	31.63	233.93

TABLE 4.25 Outputs, costs and margins for trading enterprises - system F3 / F4 bottom quartile

No. of enterprises in sample	9		
Animals per enterprise	57.78		
Throughput per enterprise (kgs)	13983.3		
Forage ha. per enterprise	13.11		
Stocking rate (LU / forage ha.)	2.28		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	175.86	72.67	775.06
Beef Special Premium	63.22	26.12	278.64
- extensification	7.28	3.01	32.12
Slaughter Premium	29.08	12.01	128.15
Total Output ( A )	275.44	113.81	1213.97
<i>Variable costs</i>			
Concentrates	98.15	40.56	432.57
Purchased bulk feeds	7.17	2.96	31.58
Agistment and keep	2.08	0.86	9.15
Forage variable costs	28.23	11.66	124.41
Veterinary and medicine costs	9.74	4.03	42.94
Contract haulage	5.80	2.40	25.55
Contract work	2.60	1.07	11.44
Casual labour	0.12	0.05	0.53
Miscellaneous costs	14.73	6.09	64.91
Marketing deductions	9.97	4.12	43.94
Total variable costs ( B )	178.59	73.80	787.02
Gross Margin ( A - B ) ( C )	96.85	40.01	426.95
<i>Fixed Costs</i>			
Labour - trading enterprise	73.62	30.42	324.49
- forage	5.56	2.30	24.49
<i>(of which : unpaid labour)</i>	<i>73.76</i>	<i>30.48</i>	<i>325.10</i>
Machinery - trading enterprise	36.33	15.01	160.11
- forage	10.78	4.46	47.52
Equipment depreciation and repairs	3.50	1.44	15.41
Buildings & fixtures	18.57	7.67	81.85
Rent / rental equivalent	32.47	13.42	143.10
<i>(of which : imputed to owner occupied land)</i>	<i>29.79</i>	<i>12.31</i>	<i>131.27</i>
Total fixed costs ( D )	180.83	74.72	796.97
Margin before overheads ( C - D ) ( E )	-83.98	-34.71	-370.02
Environmental scheme payments ( F )	0.00	0.00	0.00
<i>Overheads</i>			
Labour	11.01	4.55	48.51
Machinery	7.06	2.92	31.12
Buildings	2.06	0.85	9.08
General	12.65	5.23	55.76
Total overheads ( G )	32.78	13.55	144.47
Net Margin ( E + F - G )	-116.76	-48.26	-514.49

TABLE 4.26 Outputs, costs and margins for trading enterprises - system F5 top quartile

No. of enterprises in sample	21		
Animals per enterprise	114.29		
Throughput per enterprise (kgs)	32018.3		
Forage ha. per enterprise	42.86		
Stocking rate (LU / forage ha.)	1.46		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	259.94	92.78	693.14
Beef Special Premium	72.67	25.94	193.78
- extensification	31.23	11.14	83.27
Slaughter Premium	49.94	17.83	133.18
Total Output ( A )	413.78	147.69	1103.37
<i>Variable costs</i>			
Concentrates	84.89	30.30	226.36
Purchased bulk feeds	12.47	4.45	33.25
Agistment and keep	0.00	0.00	0.00
Forage variable costs	21.35	7.62	56.93
Veterinary and medicine costs	9.85	3.52	26.27
Contract haulage	7.98	2.85	21.28
Contract work	4.95	1.77	13.21
Casual labour	0.84	0.30	2.24
Miscellaneous costs	13.31	4.75	35.49
Marketing deductions	12.88	4.60	34.34
Total variable costs ( B )	168.52	60.16	449.37
Gross Margin ( A - B ) ( C )	245.26	87.53	654.00
<i>Fixed Costs</i>			
Labour - trading enterprise	56.94	20.33	151.84
- forage	3.97	1.42	10.59
<b>(of which : unpaid labour)</b>	<b>48.46</b>	<b>17.30</b>	<b>129.23</b>
Machinery - trading enterprise	28.08	10.02	74.87
- forage	5.46	1.95	14.56
Equipment depreciation and repairs	2.09	0.75	5.58
Buildings & fixtures	7.65	2.73	20.39
Rent / rental equivalent	42.74	15.26	113.98
<b>(of which : imputed to owner occupied land)</b>	<b>28.04</b>	<b>10.01</b>	<b>74.78</b>
Total fixed costs ( D )	146.93	52.46	391.81
Margin before overheads ( C - D ) ( E )	98.33	35.07	262.19
Environmental scheme payments ( F )	11.09	3.96	29.58
<i>Overheads</i>			
Labour	8.04	2.87	21.44
Machinery	4.53	1.62	12.09
Buildings	0.80	0.28	2.12
General	20.96	7.48	55.90
Total overheads ( G )	34.33	12.25	91.55
Net Margin ( E + F - G )	75.09	26.78	200.22

TABLE 4.27 Outputs, costs and margins for trading enterprises - system F5 bottom quartile

No. of enterprises in sample	21		
Animals per enterprise	94.43		
Throughput per enterprise (kgs)	18659.5		
Forage ha. per enterprise	29.90		
Stocking rate (LU / forage ha.)	2.03		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	148.32	75.06	468.43
Beef Special Premium	47.95	24.27	151.47
- extensification	4.67	2.36	14.76
Slaughter Premium	32.12	16.25	101.44
Total Output ( A )	233.06	117.94	736.10
<i>Variable costs</i>			
Concentrates	72.68	36.78	229.53
Purchased bulk feeds	4.10	2.07	12.94
Agistment and keep	0.00	0.00	0.00
Forage variable costs	26.88	13.60	84.88
Veterinary and medicine costs	9.02	4.57	28.49
Contract haulage	4.27	2.16	13.48
Contract work	5.26	2.66	16.62
Casual labour	0.13	0.06	0.40
Miscellaneous costs	21.09	10.68	66.62
Marketing deductions	11.21	5.68	35.42
Total variable costs ( B )	154.64	78.26	488.38
Gross Margin ( A - B ) ( C )	78.42	39.68	247.72
<i>Fixed Costs</i>			
Labour - trading enterprise	75.41	38.16	238.16
- forage	10.51	5.32	33.18
<i>(of which : unpaid labour)</i>	<i>70.18</i>	<i>35.52</i>	<i>221.64</i>
Machinery - trading enterprise	46.42	23.49	146.59
- forage	18.72	9.48	59.13
Equipment depreciation and repairs	2.15	1.09	6.79
Buildings & fixtures	6.99	3.54	22.07
Rent / rental equivalent	41.05	20.77	129.63
<i>(of which : imputed to owner occupied land)</i>	<i>25.48</i>	<i>12.89</i>	<i>80.47</i>
Total fixed costs ( D )	201.25	101.85	635.55
Margin before overheads ( C - D ) ( E )	-122.83	-62.17	-387.83
Environmental scheme payments ( F )	0.83	0.42	2.61
<i>Overheads</i>			
Labour	11.78	5.96	37.19
Machinery	9.06	4.59	28.63
Buildings	1.52	0.77	4.82
General	17.71	8.96	55.92
Total overheads ( G )	40.07	20.28	126.56
Net Margin ( E + F - G )	-162.07	-82.03	-511.78

TABLE 4.28 Outputs, costs and margins for trading enterprises - system S1/S2 top quartile

No. of enterprises in sample	16		
Animals per enterprise	82.25		
Throughput per enterprise (kgs)	17852.8		
Forage ha. per enterprise	27.50		
Stocking rate (LU / forage ha.)	1.12		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	208.67	96.14	624.11
Beef Special Premium	63.41	29.21	189.64
- extensification	20.77	9.57	62.11
Slaughter Premium	3.84	1.77	11.49
Total Output ( A )	296.69	136.69	887.35
<i>Variable costs</i>			
Concentrates	35.84	16.51	107.20
Purchased bulk feeds	5.86	2.70	17.53
Agistment and keep	0.00	0.00	0.00
Forage variable costs	22.60	10.41	67.60
Veterinary and medicine costs	9.08	4.18	27.16
Contract haulage	4.45	2.05	13.31
Contract work	1.24	0.57	3.71
Casual labour	0.07	0.03	0.22
Miscellaneous costs	11.65	5.37	34.84
Marketing deductions	8.12	3.74	24.29
Total variable costs ( B )	98.91	45.56	295.86
Gross Margin ( A - B ) ( C )	197.78	91.13	591.49
<i>Fixed Costs</i>			
Labour - trading enterprise	39.70	18.29	118.73
- forage	5.45	2.51	16.29
<b>(of which : unpaid labour)</b>	<b>33.65</b>	<b>15.50</b>	<b>100.65</b>
Machinery - trading enterprise	23.59	10.87	70.55
- forage	9.54	4.40	28.55
Equipment depreciation and repairs	1.93	0.89	5.78
Buildings & fixtures	3.76	1.73	11.24
Rent / rental equivalent	40.73	18.76	121.82
<b>(of which : imputed to owner occupied land)</b>	<b>16.86</b>	<b>7.77</b>	<b>50.44</b>
Total fixed costs ( D )	124.70	57.45	372.96
Margin before overheads ( C - D ) ( E )	73.08	33.68	218.53
Environmental scheme payments ( F )	8.01	3.69	23.96
<i>Overheads</i>			
Labour	6.26	2.88	18.73
Machinery	4.94	2.27	14.76
Buildings	0.41	0.19	1.24
General	18.70	8.61	55.93
Total overheads ( G )	30.31	13.95	90.66
Net Margin ( E + F - G )	50.78	23.42	151.83



TABLE 4.29 Outputs, costs and margins for trading enterprises - system S1/S2 bottom quartile

No. of enterprises in sample	16		
Animals per enterprise	56.75		
Throughput per enterprise (kgs)	12928.8		
Forage ha. per enterprise	15.19		
Stocking rate (LU / forage ha.)	1.20		
<i>Output</i>	<i>£ / animal</i>	<i>pence / kg</i>	<i>£ / for. ha.</i>
Value of cattle	201.81	88.59	753.98
Beef Special Premium	41.32	18.14	154.38
- extensification	7.03	3.09	26.26
Slaughter Premium	2.78	1.22	10.40
Total Output ( A )	252.94	111.04	945.02
<i>Variable costs</i>			
Concentrates	83.67	36.72	312.57
Purchased bulk feeds	11.12	4.88	41.54
Agistment and keep	0.00	0.00	0.00
Forage variable costs	30.75	13.50	114.88
Veterinary and medicine costs	15.15	6.65	56.62
Contract haulage	2.66	1.17	9.94
Contract work	1.85	0.81	6.91
Casual labour	0.26	0.12	0.99
Miscellaneous costs	13.60	5.97	50.82
Marketing deductions	9.71	4.26	36.27
Total variable costs ( B )	168.77	74.08	630.54
Gross Margin ( A - B ) ( C )	84.17	36.96	314.48
<i>Fixed Costs</i>			
Labour - trading enterprise	88.02	38.63	328.83
- forage	6.87	3.02	25.67
<i>(of which : unpaid labour)</i>	<i>86.84</i>	<i>38.12</i>	<i>324.42</i>
Machinery - trading enterprise	40.25	17.67	150.36
- forage	13.43	5.89	50.16
Equipment depreciation and repairs	3.77	1.66	14.09
Buildings & fixtures	15.98	7.02	59.71
Rent / rental equivalent	36.90	16.20	137.85
<i>(of which : imputed to owner occupied land)</i>	<i>24.12</i>	<i>10.59</i>	<i>90.13</i>
Total fixed costs ( D )	205.22	90.09	766.67
Margin before overheads ( C - D ) ( E )	-121.05	-53.13	-452.19
Environmental scheme payments ( F )	1.53	0.67	5.73
<i>Overheads</i>			
Labour	13.32	5.85	49.77
Machinery	7.72	3.39	28.83
Buildings	2.75	1.21	10.27
General	14.94	6.56	55.83
Total overheads ( G )	38.73	17.01	144.70
Net Margin ( E + F - G )	-158.25	-69.47	-591.16

TABLE 4.30 Analysis of calf output from suckler herds - by region and size

North of England region			
	Total number	Total value	£ per head
Opening valuation	460	100475	218
Purchases	87	11075	127
Transfers in	94	10810	115
Sales of calves	69	21446	311
Retentions / Transfers out	1116	344423	309
Closing valuation	570	147930	260
£ Output		391439	
West of England region			
	Total number	Total value	£ per head
Opening valuation	518	111749	216
Purchases	69	4383	64
Transfers in	2	300	150
Sales of calves	129	46936	364
Retentions / Transfers out	1603	496500	310
Closing valuation	497	112235	226
£ Output		539239	
East of England region			
	Total number	Total value	£ per head
Opening valuation	502	91326	182
Purchases	34	2650	78
Transfers in	0	0	-
Sales of calves	160	60876	380
Retentions / Transfers out	1128	302440	268
Closing valuation	521	96141	185
£ Output		365481	
Analysis of calf output from Suckler herds - by herd size			
10-24 cows			
	Total number	Total value	£ per head
Opening valuation	172	37572	218
Purchases	13	1490	115
Transfers in	0	0	-
Sales of calves	85	28174	331
Retentions / Transfers out	303	87744	290
Closing valuation	190	45861	241
£ Output		122717	

**TABLE 4.31 Analysis of calf output from suckler herds - by size (continued) and quartile**

25-49 Cows			
	Total number	Total value	£ per head
Opening valuation	493	94644	192
Purchases	94	7724	82
Transfers in	2	300	150
Sales of calves	181	61034	337
Retentions / Transfers out	1043	309285	297
Closing valuation	492	102520	208
£ Output		370171	
Over 50 Cows			
	Total number	Total value	£ per head
Opening valuation	815	171335	210
Purchases	83	8894	107
Transfers in	94	10810	115
Sales of calves	92	40051	435
Retentions / Transfers out	2501	746334	298
Closing valuation	906	207925	229
£ Output		803271	
Top quartile			
	Total number	Total value	£ per head
Opening valuation	511	94275	184
Purchases	100	10168	102
Transfers in	0	0	-
Sales of calves	25	9881	395
Retentions / Transfers out	1593	500194	314
Closing valuation	493	102315	208
£ Output		507947	
Bottom quartile			
	Total number	Total value	£ per head
Opening valuation	432	100447	233
Purchases	17	2525	149
Transfers in	94	10810	115
Sales of calves	149	57516	386
Retentions / Transfers out	605	186875	309
Closing valuation	501	122991	245
£ Output		253600	
All farms			
	Total number	Total value	£ per head
Opening valuation	1480	303551	205
Purchases	190	18108	95
Transfers in	96	11110	116
Sales of calves	358	129258	361
Retentions / Transfers out	3847	1143364	297
Closing valuation	1588	356306	224
£ Output		1296159	

Table 4.32 Analysis of trading enterprise throughput - by enterprise type

Enterprise F1/F2					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	4370	1328159	1317427	304	301
Purchases / Transfers in	4903	746326	642979	152	131
Finished sales	3857	1893352	2119064	491	549
Other sales / Transfers out	130	54882	47270	422	364
Deaths	530	-	-	-	-
Closing valuation	4756	1435871	1405174	302	295
Output / Throughput		1309620	1611102		
Enterprise F3					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	1819	641028	627745	352	345
Purchases / Transfers in	1192	129986	89070	109	75
Finished sales	920	486851	511908	529	556
Other sales / Transfers out	31	10246	9572	331	309
Deaths	64	-	-	-	-
Closing valuation	1996	701923	672705	352	337
Output / Throughput		428006	477370		
Enterprise F4					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	2258	892524	826789	395	366
Purchases / Transfers in	1672	563162	469172	337	281
Finished sales	1589	868941	901856	547	568
Other sales / Transfers out	127	61336	59120	483	466
Deaths	37	-	-	-	-
Closing valuation	2177	895004	851137	411	391
Output / Throughput		369595	516152		
Enterprise F5					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	8969	3342044	3235096	373	361
Purchases / Transfers in	7953	2524188	2150999	317	270
Finished sales	6826	3818323	3868194	559	567
Other sales / Transfers out	347	138841	127965	400	369
Deaths	182	-	-	-	-
Closing valuation	9567	3678476	3491101	384	365
Output / Throughput		1769408	2101165		
Enterprise S1					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	2534	691967	645676	273	255
Purchases / Transfers in	1687	154546	103142	92	61
Finished sales	129	59374	71557	460	555
Other sales / Transfers out	1513	602815	570762	398	377
Deaths	110	-	-	-	-
Closing valuation	2469	698185	641494	283	260
Output / Throughput		513861	534995		

Table 4.33 Analysis of trading enterprise throughput - by enterprise type (continued) and quartiles

Enterprise S2					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	2064	689877	650736	334	315
Purchases / Transfers in	2302	731279	614309	318	267
Finished sales	391	195846	203930	501	522
Other sales / Transfers out	1805	790459	725820	438	402
Deaths	42	-	-	-	-
Closing valuation	2128	761812	712496	358	335
Output / Throughput		326961	377201		
Enterprise F1/F2 - Top quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	550	177357	171780	322	312
Purchases / Transfers in	726	156835	155047	216	214
Finished sales	626	310663	347718	496	555
Other sales / Transfers out	25	12700	10450	508	418
Deaths	18	-	-	-	-
Closing valuation	607	227570	219935	375	362
Output / Throughput		216741	251276		
Enterprise F1/F2 - Bottom quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	1214	380710	359967	314	297
Purchases / Transfers in	1569	227452	186115	145	119
Finished sales	1011	483555	542954	478	537
Other sales / Transfers out	48	17439	15740	363	328
Deaths	286	-	-	-	-
Closing valuation	1438	401917	377932	279	263
Output / Throughput		294749	390544		
Enterprise F3/F4 - Top quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	1140	408625	396145	358	347
Purchases / Transfers in	841	155224	123955	185	147
Finished sales	638	364282	371592	571	582
Other sales / Transfers out	35	16850	15200	481	434
Deaths	37	-	-	-	-
Closing valuation	1271	458917	434514	361	342
Output / Throughput		276200	301206		
Enterprise F3/F4 - Bottom quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	520	208420	195210	401	375
Purchases / Transfers in	495	144963	109125	293	220
Finished sales	322	169789	176230	527	547
Other sales / Transfers out	12	6300	6300	525	525
Deaths	12	-	-	-	-
Closing valuation	669	268745	247655	402	370
Output / Throughput		91451	125850		

Table 4.34 Analysis of trading enterprise throughput - by quartiles (continued)

Enterprise F5 - Top quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	2468	988452	927891	401	376
Purchases / Transfers in	2708	923874	821387	341	303
Finished sales	2436	1412445	1419742	580	583
Other sales / Transfers out	118	47656	42890	404	363
Deaths	50	-	-	-	-
Closing valuation	2572	1076089	959031	418	373
Output / Throughput		623864	672385		
Enterprise F5 - Bottom quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	2083	796049	757946	382	364
Purchases / Transfers in	1512	473334	410920	313	272
Finished sales	1296	709223	719241	547	555
Other sales / Transfers out	44	17850	15820	406	360
Deaths	55	-	-	-	-
Closing valuation	2200	836440	825654	380	375
Output / Throughput		294130	391849		
Enterprise S1/S2 - Top quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	1399	386370	385870	276	276
Purchases / Transfers in	1157	269294	212731	233	184
Finished sales	118	61519	62245	521	528
Other sales / Transfers out	970	410390	381165	423	393
Deaths	36	-	-	-	-
Closing valuation	1432	458365	440836	320	308
Output / Throughput		274610	285645		
Enterprise S1/S2 - Bottom quartile					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	1080	350041	297702	324	276
Purchases / Transfers in	819	122404	88893	149	109
Finished sales	55	27765	28707	505	522
Other sales / Transfers out	844	345862	318573	410	377
Deaths	72	-	-	-	-
Closing valuation	928	282061	246175	304	265
Output / Throughput		183243	206860		

Table 4.35 Analysis of trading enterprise throughput - by size and organic enterprises

20-49 animals					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	3316	1161420	1099862	350	332
Purchases / Transfers in	3222	850995	712814	264	221
Finished sales	1827	954943	1022413	523	560
Other sales / Transfers out	1393	565672	529926	406	380
Deaths	53	-	-	-	-
Closing valuation	3265	1152873	1062342	353	325
Output / Throughput		661073	802005		
50-99 animals					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	5010	1767045	1723080	353	344
Purchases / Transfers in	4316	1209301	1018012	280	236
Finished sales	3286	1812071	1911790	551	582
Other sales / Transfers out	849	359031	335057	423	395
Deaths	128	-	-	-	-
Closing valuation	5063	1873961	1787854	370	353
Output / Throughput		1068717	1293609		
Over 100 animals					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	13688	4657134	4480527	340	327
Purchases / Transfers in	12171	2789191	2338845	229	192
Finished sales	8599	4555672	4742306	530	551
Other sales / Transfers out	1711	733876	675526	429	395
Deaths	784	-	-	-	-
Closing valuation	14765	5144437	4923911	348	333
Output / Throughput		2987660	3522371		
Organic enterprises					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	561	184527	179750	329	320
Purchases / Transfers in	344	110518	103110	321	300
Finished sales	220	130053	120019	591	546
Other sales / Transfers out	91	45530	39155	500	430
Deaths	5	-	-	-	-
Closing valuation	589	208005	213231	353	362
Output / Throughput		88543	89545		

Table 4.36 Analysis of trading enterprise throughput - by region and overall

North					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	5822	2142474	1998271	368	343
Purchases / Transfers in	5936	1546319	1294771	260	218
Finished sales	4004	2156521	2245590	539	561
Other sales / Transfers out	1009	444079	412551	440	409
Deaths	466	-	-	-	-
Closing valuation	6279	2405671	2227871	383	355
Output / Throughput		1317478	1592970		
West					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	9916	3381017	3274259	341	330
Purchases / Transfers in	8360	1927481	1573484	231	188
Finished sales	5474	2899143	3026285	530	553
Other sales / Transfers out	1810	759321	701430	420	388
Deaths	358	-	-	-	-
Closing valuation	10634	3664541	3485059	345	328
Output / Throughput		2014507	2365031		
East					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	6276	2062108	2030939	329	324
Purchases / Transfers in	5413	1375687	1201416	254	222
Finished sales	4234	2267023	2404634	535	568
Other sales / Transfers out	1134	455179	426528	401	376
Deaths	141	-	-	-	-
Closing valuation	6180	2101059	2061177	340	334
Output / Throughput		1385466	1659984		
All enterprises					
	Total number	Total value (£)	Total weight (kg)	£ per head	Kg per head
Opening valuation	22014	7585599	7303469	345	332
Purchases / Transfers in	19709	4849487	4069671	246	206
Finished sales	13712	7322687	7676509	534	560
Other sales / Transfers out	3953	1658579	1540509	420	390
Deaths	965	-	-	-	-
Closing valuation	23093	8171271	7774107	354	337
Output / Throughput		4717451	5617985		



## CHAPTER 5: Results of Attitudinal Questionnaire

### 5.1 Introduction

During the final data collection visit in early 2004, farmers were asked of their perceptions of the future direction of their own beef enterprise.

### 5.2 Suckler herds

#### 5.2.1 Past trends in herd size

The 90 farmers interviewed who had suckler herds were asked the size of their suckler herd in 1998. In 1998 the average size of the suckler cow herd within the sample was 46 cows (Table 5.1). By 2003, this had risen by 6% to 49 cows. Significantly, farms in the small size group had increased their herd size by 26% between 1998 and 2003. Medium sized herds had increased in size by 17% during the same period, but large farms had seen a very small decrease in their herd size. Even more striking was the variation between the regions. Suckler herds in the North saw an increase of 35% in their herd size during the period, whereas there was an 11% decrease in the size of herds in the East.

**Table 5.1 Comparison of suckler herd size – 1998 vs 2003**

	All herds	10 – 24 cows	25 – 49 cows	Over 50 cows
No of cows 1998	45.86	14.86	29.57	87.65
No of cows 2003	48.86	18.79	34.59	87.22
Percentage change	6.26%	26.45%	16.98%	-0.49%
		North	West	East
No of cows 1998		33.73	47.38	55.00
No of cows 2003		45.58	51.52	48.69
Percentage change		35.13%	8.74%	-11.47%
	Top quartile	Bottom quartile	Continental cows	Continental X Dairy cows
No of cows 1998	59.91	26.39	78.76	31.94
No of cows 2003	69.70	36.28	66.38	35.51
Percentage change	16.34%	37.48%	-15.72%	11.18%

### **5.2.2 Future influences on the suckler herd**

Participants were then asked to list the main factors likely to influence their plans for their suckler herd over the next five years (Table 5.2). Overall, the profitability of suckler production was the factor that 35% of farmers saw as the most likely to influence their plans, 28% stated that personal circumstances was the most important factor likely to influence the future direction of their enterprise, with a further 22% being influenced by changes within the Common Agricultural Policy (CAP). The significance of profitability affecting future decisions varied between the top and bottom quartiles. Of the best performing farmers, 46% cited profitability as the main factor, but only 17% of the worst performing intended to base any future decisions on the profitability of suckler cows. Indeed, profitability ranked third in this group, with personal circumstances (35%) and changes to the CAP (26%) being more important to them.

### **5.2.3 Effect of the Mid Term Review on the future of suckler herds**

As from 2005 beef support payments such as Suckler Cow Premium, Beef Special Premium, Slaughter Premium and Extensification Payment will no longer be paid. A Single Farm Payment will be introduced without the requirement to run a beef enterprise to get the payment. As a result, the level of payment received by a business will no longer depend on the number and age of the cattle kept. When the interviews were undertaken, it was known that support payments were to be completely decoupled, but the details of the Single Farm Payment had not been finalized. In view of this significant change in agricultural support, survey participants were asked about their plans for the suckler herd over the next five years (Tables 5.4 and 5.5). A total of 13% believed that they would increase their herd size by an average 39%. A further 12% of participants thought that they would decrease the herd size by 39% over the next five years, whilst 44% believed there would be no change in their enterprise size. A total of 6% were intending to get rid of their suckler herd. Twenty nine percent were uncertain as to what impact the policy change would have on their suckler herd.

#### **5.2.4 Perceived premium – suckler herds**

The farmers who sold calves at weaning were asked if they believed that they received a premium for their suckled calves relative to average market prices. For example, a premium is an additional return net of any additional cost e.g. transport, labour for trimming. They were asked whether they considered a premium was received due to one of the following three factors; organically reared animals; part of a farm assurance scheme; particular breed characteristics. Of the 19 farms selling calves at weaning, 2 felt that they gained a premium because of being farm assured and 9 perceived a premium because of the breed of the calves.

### **5.3 Trading enterprises**

The 232 farmers in the trading enterprise survey were also asked their perceptions of the future of their beef enterprise.

#### **5.3.1 Past trends in enterprise size**

In 1998 the average number of animals within trading enterprises was almost 83 animals; by 2003 this had increased by 11% to almost 92 animals (See Table 5.3). There were however, significant differences in what had occurred to stock numbers between size groups. The smallest size group, with less than 50 animals (size group 1), had seen a decline of almost 32% in stock numbers between 1998 and 2003. Size group 2, with between 50 and 99 animals saw an increase of 7% in the size of the enterprise, whilst the large size group (over 100 animals) had seen almost a 30% increase in stock numbers between 1998 and 2003. This is in direct contrast to the suckler herds in the survey, where the smallest herds had got bigger, and the largest herds had remained almost static.

**Table 5.2 Factors affecting the future direction of the suckler herd (% of farmers citing as main reason)**

	All herds	10 – 24 cows	25 – 49 cows	Over 50 cows
Personal circumstances	27.66	39.13	34.21	12.12
Family circumstances	8.51	13.04	5.26	9.09
Profitability	35.11	21.74	39.47	39.39
Labour availability	1.06	4.35	0	0
Environmental concerns	0	0	0	0
Capital investment	1.06	0	0	3.03
Changes to the CAP	22.34	17.39	15.79	33.33
Other reasons	4.26	4.35	5.26	3.03
		North	West	East
Personal circumstances		26.92	23.68	33.33
Family circumstances		15.38	7.89	3.33
Profitability		46.15	39.47	20.00
Labour availability		0	2.63	0
Environmental concerns		0	0	0
Capital investment		3.85	0	0
Changes to the CAP		7.69	21.05	36.67
Other reasons		0	5.26	6.67
	Top quartile	Bottom quartile	Continental cows	Continental X Dairy cows
Personal circumstances	23.08	34.78	19.05	17.65
Family circumstances	11.54	8.70	4.76	17.65
Profitability	46.15	17.39	33.33	47.06
Labour availability	0	0	0	0
Environmental concerns	0	0	0	0
Capital investment	0	4.35	0	0
Changes to the CAP	19.23	26.09	38.10	17.65
Other reasons	0	8.70	4.76	0

The change in trading enterprise size within regions shows the same trend as was seen in the suckler herd sample, with a considerable decrease in size of 24% in the East, and significant increases in size of the enterprises in the North and West of 29% and 38% respectively. This suggests a general trend of a shift in beef production away from the East towards the North and West. There was no significant trend between enterprise types.

**Table 5.3 Comparison of trading enterprise size – 1998 vs 2003**

	All enterprises	20 – 49 animals	50 – 99 animals	Over 100 animals
No of animals 1998	82.59	48.05	68.27	132.05
No of animals 2003	91.74	32.72	73.08	171.6
Percentage change	11.08%	-31.90%	7.05%	29.95%
		North	West	East
No of animals 1998		75.42	68.24	109.74
No of animals 2003		97.37	94.15	83.46
Percentage change		29.10%	37.97%	-23.95%

### 5.3.2 Choice of current system

The beef trading enterprise is probably one of the most flexible enterprises in British agriculture. It is relatively easy to vary the time and age of purchase, intensiveness of production, and age and destination of sale. Participants were asked to list the four main factors that influenced the choice of their enterprise in 2003. The results are tabulated in Tables 5.6, 5.7 and 5.8.

Overall, profitability was the most important factor contributing to the choice of enterprise, with 37% of responses. The fact that the enterprise fitted well into their farming system was listed as the second most influential factor with 27% of responses.

There was no significant variation between sizes, regions or enterprise types, other than that 56% of farmers in the North cited that profit was most important to them, compared to an average of 37% of farmers in all regions.

### 5.3.3 Future influences on the trading enterprise

Farmers were asked what four main factors are likely to influence plans for the surveyed trading enterprise over the next five years. As expected, profitability was ranked as the single most important factor with 39% of respondents citing it as the major factor, followed by changes to the CAP with 29%. Responses to this question were remarkably similar across the enterprise types, sizes and regions.

#### **5.3.4 Effect of the Mid Term Review on the future of trading enterprises**

The beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium and Extensification Payment) will no longer be paid from 2005. These premiums will be replaced by a Single Farm Payment with no requirement to run a beef enterprise to receive payment.

In view of the Mid Term Review (MTR), farmers were asked what their plans were for the beef enterprise over the next five years. A total of 34% of participants were uncertain as to the future direction of their enterprise following the MTR and 38% believed that there would be no change in their stock numbers. A further 10% thought that their cattle numbers would increase by 42% with 14% thinking that cattle numbers would coincidentally decrease by 42%. Only 1% said that they would convert to organic farming. Of the remainder of participants within the sample 1% would cease farming altogether and 3% planned to get rid of the enterprise but continue farming.

#### **5.3.5 Perceived premium – trading enterprises**

The attitudinal questionnaire concluded with a question as to whether it was the farmers' perception that they received a premium for their store or finished cattle. A premium is an additional return net of any perceived additional cost e.g. transport, labour for trimming etc. If a premium was perceived, farmers were asked to suggest the reasons for the perceived premium. These being one of the following four options: organic production, farm assurance, breed of cattle, or supermarket branding. Of respondents to this question, 46% perceived that there was no premium received in relation to any of the four options. A further 28% believed that the breed of their cattle was giving them a premium, with 19% perceiving that being members of a farm assurance scheme produced a premium for their produce. Only 6% perceived that supermarket branding was giving them a premium. Four out of the 5 organic farms in the survey perceived that they received a premium because of their organic status.

	All herds	10-24 cows	25-49 cows	Over 50 cows
Number of herds in the sample	90	22	37	31

Approximately what was the size of the suckler herd five years ago (1998)?(Number of cows)

	All herds	10-24 cows	25-49 cows	Over 50 cows
	45.98	14.86	29.57	87.65

What is the main factor that is likely to influence your plans for the future of the suckler herd over the next five years ?

(Percentage of farmers responding)

	All herds	10-24 cows	25-49 cows	Over 50 cows
Personal circumstances (age, health, etc.)	27.66	39.13	34.21	12.12
Family circumstances (succession, inheritance, etc.)	8.51	13.04	5.26	9.09
Profitability of suckler production	35.11	21.74	39.47	39.39
Availability of labour	1.06	4.35	0	0
Environmental concerns (pollution, etc.)	0	0	0	0
Capital investment/disinvestment	1.06	0	0	3.03
Changes to the CAP	22.34	17.39	15.79	33.33
Other	4.26	4.35	5.26	3.03

From 2005, beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium

and Extensification Payment) will no longer be paid. A Single Farm Payment will be introduced but there will be no need to

run a beef enterprise to get the payment. This means the level of payment your business receives will no longer depend

on the number and age of the cattle you keep. In view of this what are your plans for the suckler herd over the next five years?

(Percentage of farmers responding)

	All herds	10-24 cows	25-49 cows	Over 50 cows
Increase suckler cow numbers	13.33	4.55	13.51	19.35
(percentage increase)	39.00	20.00	56.00	28.00
Decrease suckler cow numbers	12.22	18.18	5.41	16.13
(percentage decrease)	39.27	62.50	35.00	22.40
No change in suckler cow numbers	44.44	54.55	37.84	45.16
Convert to organic production (if not already converted)	2.22	0	2.70	3.23
Revert to conventional production (if already organic)	0	0	0	0
Get rid of suckler cows and continue farming	3.33	4.55	2.70	3.23
Cease farming altogether	2.22	4.55	0	3.23
Uncertain	28.89	18.18	43.24	19.35

Is it your perception that you receive a premium for your suckled calves relative to average market prices?

(do not answer if calves are transferred to trading enterprise)

A premium is a perceived additional return net of any perceived additional cost e.g. transport, labour for trimming

(Percentage of farmers responding)

	All herds
Premium because of - Organic Production	0
Farm Assurance	10.53
Breed	47.37
No Premium	42.10

TABLE 210. STATISTICAL QUESTIONNAIRE RESULTS - Suckler herd sample

	North	West	East	Top quartile	Bottom quartile
Number of herds in the sample	26	34	30	23	23

Approximately what was the size of the suckler herd five years ago (1998)?(Number of cows)

	North	West	East	Top quartile	Bottom quartile
	33.73	47.38	55	59.91	26.39

What is the main factor that is likely to influence your plans for the future of the suckler herd over the next five years ?

(Percentage of farmers responding)

	North	West	East	Top quartile	Bottom quartile
Personal circumstances (age, health, etc.)	26.92	23.68	33.33	23.08	34.78
Family circumstances (succession, inheritance, etc.)	15.38	7.89	3.33	11.54	8.70
Profitability of suckler production	46.15	39.47	20.00	46.15	17.39
Availability of labour	0	2.63	0	0	0
Environmental concerns (pollution, etc.)	0	0	0	0	0
Capital investment/disinvestment	3.85	0	0	0	4.35
Changes to the CAP	7.69	21.05	36.67	19.23	26.09
Other	0	5.26	6.67	0	8.70

From 2005, beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium

and Extensification Payment) will no longer be paid. A Single Farm Payment will be introduced but there will be no need to

run a beef enterprise to get the payment. This means the level of payment your business receives will no longer depend

on the number and age of the cattle you keep. In view of this what are your plans for the suckler herd over the next five years?

(Percentage of farmers responding)

	North	West	East	Top quartile	Bottom quartile
Increase suckler cow numbers	19.23	5.88	16.67	13.04	8.7
(percentage increase)	32.00	61.50	37.00	51.00	60.00
Decrease suckler cow numbers	3.85	11.76	20.00	8.70	17.39
(percentage decrease)	50.00	37.50	38.67	20.00	62.50
No change in suckler cow numbers	53.85	44.12	36.67	60.87	43.48
Convert to organic production (if not already converted)	0	5.88	0	4.35	0
Revert to conventional production (if already organic)	0	0	0	0	0
Get rid of suckler cows and continue farming	7.69	2.94	0	4.35	8.70
Cease farming altogether	0	5.88	0	4.35	4.35
Uncertain	15.38	38.24	30.00	13.04	26.09



**Table 5.6 Attitudinal questionnaire results - Trading enterprise sample by size**

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
Number of enterprises in the sample	232	88	64	80

Approximately what was the size of the trading enterprise being surveyed five years ago (1998)

in terms of average numbers of cattle per annum?

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
	82.59	48.05	68.27	132.05

What was the main factor that influenced your choice of the surveyed trading enterprise in the year 2003.

(Basically, why do you do what you do) (Percentage of farmers responding)

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
Personal circumstances (age, health, etc.)	8.02	7.69	12.12	5.00
Tradition	5.49	4.40	4.55	7.50
Profitability	36.71	43.96	33.33	31.25
Fits into farming system	27.00	24.18	28.79	28.75
Availability of land	7.59	5.49	7.58	10.00
Availability of labour	2.11	1.10	3.03	2.50
Availability of other resources, e.g. spare sheds.	5.06	6.59	3.03	5.00
Other	8.01	6.59	7.58	10.00

What is the main factors that is likely to influence your plans for the future of the surveyed enterprise over the next five years

(Percentage of farmers responding)

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
Personal circumstances (age, health, etc.)	15.00	15.22	16.42	13.58
Family circumstances (succession, inheritance, etc.)	6.67	3.26	10.45	7.41
Profitability of beef production	39.17	40.22	35.82	40.74
Availability of labour	1.25	1.09	0	2.47
Environmental concerns (pollution, etc.)	0.83	2.17	0	0
Capital investment/disinvestment	1.67	1.09	1.49	2.47
Changes to the CAP	29.17	29.35	26.87	30.86
Other	6.25	7.61	8.96	2.47

From 2005, beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium

and Extensification Payment) will no longer be paid. A Single Farm Payment will be introduced but there will be no need to

run a beef enterprise to get the payment. This means the level of payment your business receives will no longer depend

on the number and age of the cattle you keep. In view of this what are your plans for the trading enterprise over the next five years?

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
Increase cattle numbers	9.58	10.87	7.58	9.76
(percentage increase)	41.87	36.00	26.00	59.13
Decrease cattle numbers	13.75	11.96	15.15	14.63
(percentage decrease)	42.27	33.82	48.50	44.83
No change in cattle numbers	37.50	38.04	39.39	35.37
Convert to organic production (if not already converted)	0.83	2.17	0	0
Revert to conventional production (if already organic)	0	0	0	0
Get rid of trading enterprise and continue farming	3.33	2.17	6.06	2.44
Cease farming altogether	1.25	3.26	0	0
Uncertain	33.75	31.52	31.82	37.80

Is it your perception that you receive a premium for your store or finished cattle relative to average market prices?

A premium is a perceived additional return net of any perceived additional cost e.g. transport, labour for trimming

	All enterprises	20-49 animals	50-99 animals	Over 100 animals
Premium because of -				
Organic production	1.72	1.14	3.13	1.25
Farm Assurance	18.97	15.91	25.00	17.50
Breed	28.02	34.09	26.56	22.50
Supermarket branding	5.60	3.41	7.81	6.25
No premium	45.69	45.45	37.50	52.50

**Table 5.7 Attitudinal questionnaire results - Trading enterprise sample by region**

	North	West	East
Number of enterprises in the sample	59	103	70

Approximately what was the size of the trading enterprise being surveyed five years ago (1998) in terms of average numbers of cattle per annum?

	North	West	East
	75.42	68.24	109.74

What was the main factor that influenced your choice of the surveyed trading enterprise in the year 2003. (Basically, why do you do what you do) (Percentage of farmers responding)

	North	West	East
Personal circumstances (age, health, etc.)	8.62	5.56	11.27
Tradition	3.45	2.78	11.27
Profitability	55.17	36.11	22.54
Fits into farming system	22.41	27.78	29.58
Availability of land	5.17	11.11	4.23
Availability of labour	1.72	2.78	1.41
Availability of other resources, e.g. spare sheds.	3.45	5.56	5.63
Other	0	8.34	14.09

What is the main factors that is likely to influence your plans for the future of the surveyed enterprise over the next five years (Percentage of farmers responding)

	North	West	East
Personal circumstances (age, health, etc.)	13.79	16.36	13.89
Family circumstances (succession, inheritance, etc.)	6.90	6.36	6.94
Profitability of beef production	43.10	44.55	27.78
Availability of labour	1.72	0	2.78
Environmental concerns (pollution, etc.)	0	0	2.78
Capital investment/disinvestment	1.72	0.91	2.78
Changes to the CAP	29.31	24.55	36.11
Other	3.45	7.27	6.94

From 2005, beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium and Extensification Payment) will no longer be paid. A Single Farm Payment will be introduced but there will be no need to run a beef enterprise to get the payment. This means the level of payment your business receives will no longer depend on the number and age of the cattle you keep. In view of this what are your plans for the trading enterprise over the next five years?

	North	West	East
Increase cattle numbers (percentage increase)	13.56	9.17	6.94
Decrease cattle numbers (percentage decrease)	56.88	40.80	20.00
No change in cattle numbers	0	16.51	16.67
Convert to organic production (if not already converted)	0	30.83	45.00
Revert to conventional production (if already organic)	42.37	32.11	41.67
Get rid of trading enterprise and continue farming	0	1.83	0
Cease farming altogether	0	0	0
Uncertain	13.56	0.92	2.78
	1.69	1.83	0
	28.81	37.61	31.94

Is it your perception that you receive a premium for your store or finished cattle relative to average market prices? A premium is a perceived additional return net of any perceived additional cost e.g. transport, labour for trimming

	North	West	East
Premium because of - Organic production	0	1.94	2.86
Farm Assurance	6.78	21.36	25.71
Breed	33.9	21.36	32.86
Supermarket branding	3.39	6.80	5.71
No premium	55.93	48.54	32.86

**Table 5.8 Attitudinal questionnaire results - Trading enterprise sample by enterprise type**

	F1 / F2	F3	F4	F5	S1	S2
Number of enterprises in the sample	46	13	24	82	28	39

Approximately what was the size of the trading enterprise being surveyed five years ago (1998) in terms of average numbers of cattle per annum?

	F1 / F2	F3	F4	F5	S1	S2
	90.70	108.92	84.33	89.10	64.82	62.26

What was the main factor that influenced your choice of the surveyed trading enterprise in the year 2003. (Basically, why do you do what you do) (Percentage of farmers responding)

	F1 / F2	F3	F4	F5	S1	S2
Personal circumstances (age, health, etc.)	6.25	7.69	4.17	12.35	10.00	2.44
Tradition	6.25	7.69	16.67	2.47	6.67	2.44
Profitability	39.58	61.54	45.83	32.10	16.67	43.90
Fits into farming system	18.75	15.38	20.83	28.40	40.00	31.71
Availability of land	4.17	7.69	4.17	9.88	13.33	4.88
Availability of labour	6.25	0	0	2.47	0	0
Availability of other resources, e.g. spare sheds.	8.33	0	0	6.17	6.67	2.44
Other	10.42	0	8.33	6.17	6.67	12.2

What is the main factors that is likely to influence your plans for the future of the surveyed enterprise over the next five years (Percentage of farmers responding)

	F1 / F2	F3	F4	F5	S1	S2
Personal circumstances (age, health, etc.)	4.08	7.69	12.00	22.89	10.71	19.05
Family circumstances (succession, inheritance, etc.)	4.08	0	4.00	8.43	17.86	2.38
Profitability of beef production	46.94	53.85	52.00	31.33	35.71	35.71
Availability of labour	0	0	4.00	2.41	0	0
Environmental concerns (pollution, etc.)	0	0	0	0	0	4.76
Capital investment/disinvestment	2.04	0	0	2.41	0	2.38
Changes to the CAP	32.65	38.46	28.00	26.51	28.57	28.57
Other	10.20	0	0	6.02	7.14	7.14

From 2005, beef support payments (Suckler Cow Premium, Beef Special Premium, Slaughter Premium and Extensification Payment) will no longer be paid. A Single Farm Payment will be introduced but there will be no need to run a beef enterprise to get the payment. This means the level of payment your business receives will no longer depend on the number and age of the cattle you keep. In view of this what are your plans for the trading enterprise over the next five years?

	F1 / F2	F3	F4	F5	S1	S2
Increase cattle numbers (percentage increase)	16.67	15.38	4.00	8.24	3.57	9.76
Decrease cattle numbers (percentage decrease)	16.88	45.00	100.00	64.71	50.00	33.75
No change in cattle numbers	14.58	15.38	20.00	15.29	7.14	9.76
Convert to organic production (if not already converted)	47.14	27.50	35.60	48.08	30.00	36.75
Revert to conventional production (if already organic)	22.92	30.77	48.00	43.53	39.29	36.59
Get rid of trading enterprise and continue farming	0	0	0	1.18	0	2.44
Cease farming altogether	0	0	0	0	0	0
Uncertain	4.17	7.69	4.00	3.53	0	2.44
	0	0	0	1.18	3.57	2.44
	41.67	30.77	24.00	27.06	46.43	36.59

Is it your perception that you receive a premium for your store or finished cattle relative to average market prices?

A premium is a perceived additional return net of any perceived additional cost e.g. transport, labour for trimming

	F1 / F2	F3	F4	F5	S1	S2
Premium because of - Organic production	0	0	0	2.44	0	5.13
Farm Assurance	8.70	23.08	20.83	24.39	25.00	12.82
Breed	23.91	15.38	33.33	24.39	17.86	48.72
Supermarket branding	6.52	15.38	8.33	4.88	3.57	2.56
No premium	60.87	46.16	37.51	43.90	53.57	30.77



## CHAPTER 6: Conclusion

Any conclusion must take into account the forthcoming decoupling of headage payments. From 2005, direct subsidies are being replaced with the Single Farm Payment, which the farmer will receive regardless of the number of stock on the farm (within the constraints of the cross compliance measures). The inevitable result of these decoupled payments should be that an individual enterprise must be profitable to justify its place on the farm.

During 2003, the average suckler cow herd in the sample lost £106 per cow. The fact that the best performing farms actually made a net margin of £55 per cow is encouraging, as it suggests that there was potentially a possibility of 'making money' from suckler cows. The fact that the worst performing herds lost £339 per cow means that these herds have a long way to go.

On average, suckler herds in the survey received £158.78 per cow in subsidy in 2003. Therefore, assuming costs remain constant, to get these farms back to the level they were at in 2003 calf output needs to be increased by 54%. To get these farms into profit, calf output per cow needs to be raised by £265, a massive 90% increase in suckled calf values. Even on the best performing herds, calf output needs to increase from £317 to £439 per cow to break even after 2005.

The situation in trading enterprises seems equally stark. Without subsidies, the value of cattle output needs to increase by almost 54 pence per kilogramme liveweight to break even. The most profitable system, calf-based semi intensive finishers, will need an additional 31 pence per kilogramme liveweight to break even after 2005. The top quartile of the semi intensive finishers currently make a profit of almost 32p/kg throughput (£82 per animal). With direct subsidies of 56p/kg throughput (£146 per animal), continuing production with the current price of beef seems unprofitable.

These figures are taken in isolation of the value of the incoming calf, which we have already established needs to increase by at least £123 per calf to allow the suckler herd to break-even.

Of course, the other side of the equation is the cost of production. Unpaid labour costs average 20p/kg throughput across the whole of the trading enterprise sample, and varies between 7p/kg throughput (top quartile intensive producers, F1/F2) and 38p (bottom quartile store producers, S1/S2). Imputed rent on owner-occupied land contributes an average of around 8–15p/kg throughput to the cost of production. Totalled together these imputed costs contribute significantly to the cost of production.

If the price of beef does not improve considerably, only the very best producers will be able to make money in the future, and that will only be if they ignore their own labour costs, or if they use a proportion of their Single Farm Payment to subsidize their enterprise.

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- No. 37 **Economics of Wheat and Barley Production in Great Britain: 1996/97** by Carol Asby, University of Cambridge, January 1998, £13.00
- No 38 **Economics of Oilseed Rape 1996** by M R Lewis, Askham Bryan College of Agriculture and Horticulture, February 1998, £12.00
- No 39 **Pig Production 1996/97** by Andrew Sheppard, The University of Exeter, June 1998, £8.00

- No 40 **The Structure of Pig Production in England and Wales: The Results of the National Survey of Pig Production Systems, 1 February 1998** by Andrew Sheppard, The University of Exeter, June 1998, £8.00
- No 41 **Economics of Milk Production, England and Wales 1996/97** by John Farrar and Jeremy Franks, The University of Manchester, July 1998, £18.00
- No 42 **Economics of Wheat and Barley Production in Great Britain, 1997/98** by Carol Asby, The University of Cambridge, January 1999, £13.50
- No 43 **Economics of Mushroom Production Crop Year 1997** by Jeremy Franks and John Farrar, The University of Manchester, January 1999, £15.00
- No 44 **Pig Production 1997/98** by Andrew Sheppard, The University of Exeter, July 1999, £8.00
- No 45 **Dairy Enterprise Cost Survey: A Review of the Structure and Economics of Milk Production 1987/88 to 1996/97** by Jeremy Franks, The University of Manchester, August 1999, £15.00
- No 46 **The Economics of Combinable Peas and Field Beans 1998** by Paul Wilson and Philip Robertson, The University of Nottingham, March 2000, £18.00
- No 47 **Farmers' Intentions Survey, 1994 - 1997: Final Report** by David Harvey, The University of Newcastle upon Tyne, April 2000, at cost<sup>1</sup>
- No 48 **Economics of Cereal Production, 1998/99** by Carol Asby and Alan Renwick, The University of Cambridge, April 2000, £15.00

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<sup>1</sup> Available on the Provincial Web Site; hard copies available from the Provincial Centres at cost of copying and postage.

- No 49 **Hill Cattle and Sheep Farming in England and Wales: An Economic Review 1989/90 to 1997/98** by Martin Turner, Donald Barr and Mark Fogerty, University of Exeter, April 2000, £10.00
- No 50 **Pig Production, 1998-99** by Andrew Sheppard, University of Exeter, August 2000, £8.00
- No 51 **What's the Damage? A study of the farm level costs of managing and maintaining the countryside** by John McInerney, Donald Barr, Greg MacQueen and Martin Turner, University of Exeter, December 2000, £10.00
- No 52 **Lowland Sheep 1999: The economics and management of lamb production** by Mark Fogerty, Martin Turner and Donald Barr, University of Exeter, January 2001, £10.00
- No 53 **The Economics of Potato Production in England and Wales (1999 crop)** by Paul Wilson and Philip Robertson, University of Nottingham, January 2001, £25.00.
- No 54 **Machinery, Buildings and Overhead costs and Agricultural Contracting on farms in England and Wales, 2000/01** by Abigail Tiffin, University of Reading, August 2002, £15.00.
- No 55 **The Structure of Pig Production in England: The Results of the National Survey of Pig Production Systems, 1 March 2002** by Andrew Sheppard, University of Exeter, December 2002, £8.00.
- No 56 **The Structure of the Egg Industry** by Noel Russell and Yaqin Zhuang, The University of Manchester, April 2003, £10.00

- No 57 **Economics of Horticulture Production under glass 2000-2002** by Alan Renwick, Sarah Wilshin, and Sheryl Coombe, The University of Cambridge, September 2003, £15.00 ISBN 186190 129 1
- No 58 **Economics of Milk Production: England and Wales 2002/03** by John Farrar, David Coleman and Yaqin Zhuang, The University of Manchester, January 2004, £25.00 ISBN 1 871542 44 8
- No 59 **The Structure and Economics of Broiler Production in England** by Andrew Sheppard, The University of Exeter, June 2004, £15.00 ISBN 187055878 2
- No 60 **Pig Production 2002-03** by Andrew Sheppard, The University of Exeter, October 2004, £15.00 ISBN 187055878 3
- No 61 **The Pig Production Sector in England and Wales** by Andrew Sheppard, The University of Exeter, October 2004, £15.00 ISBN 187055881 2
- No 62 **The Economics of Lowland Beef Production in England, 2003** by Huw Williams, Nick Reeves, Dylan Jones and Wyn Morris, The University of Wales, Aberystwyth, February 2005, £10.00 ISBN 0 902124 95 1



## **Appendix 2 - Centres involved in Special Studies**

### **Eastern Region**

Rural Business Unit  
Department of Land Economy  
University of Cambridge  
19 Silver Street  
Cambridge CB3 9EP

### **East Midland Region**

Rural Business Research Unit  
School of Biosciences  
University of Nottingham, Sutton Bonington Campus  
Leicestershire LE12 5RD

### **Northern Region**

Department of Agricultural Economics and Food Marketing  
University of Newcastle upon Tyne  
Newcastle upon Tyne NE1 7RU

### **North Eastern Region**

Rural Business Research Unit  
Askham Bryan College  
Askham Bryan  
York YO2 3PR

### **North Western Region**

Farm Business Unit  
CAFRE School of Economic Studies  
University of Manchester  
Dover Street Building  
Oxford Road  
Manchester M13 9PL

**Southern Region**

Department of Agricultural and Food Economics

University of Reading

4 Earley Gate

Whiteknights Road

PO Box 237

Reading RG6 2AR

**South Eastern Region**

Farm Surveys Unit

Imperial College at Wye

University of London

Wye

Ashford

Kent TN25 5AH

**South Western Region**

Centre for Rural Research

University of Exeter

Lafrowda House

St Germans Road

Exeter EX4 6TL

**Wales**

Farm Business Survey

Institute of Rural Sciences

The University of Wales, Aberystwyth

Llanbadarn Campus

Aberystwyth SY23 3AL



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