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Calves - Marketing

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TRADE IN SINGLE SUCKLED CALVES IN NORTHERN ENGLAND

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UNIVERSITY OF NEWCASTLE UPON TYNE
DEPARTMENT OF AGRICULTURAL ECONOMICS

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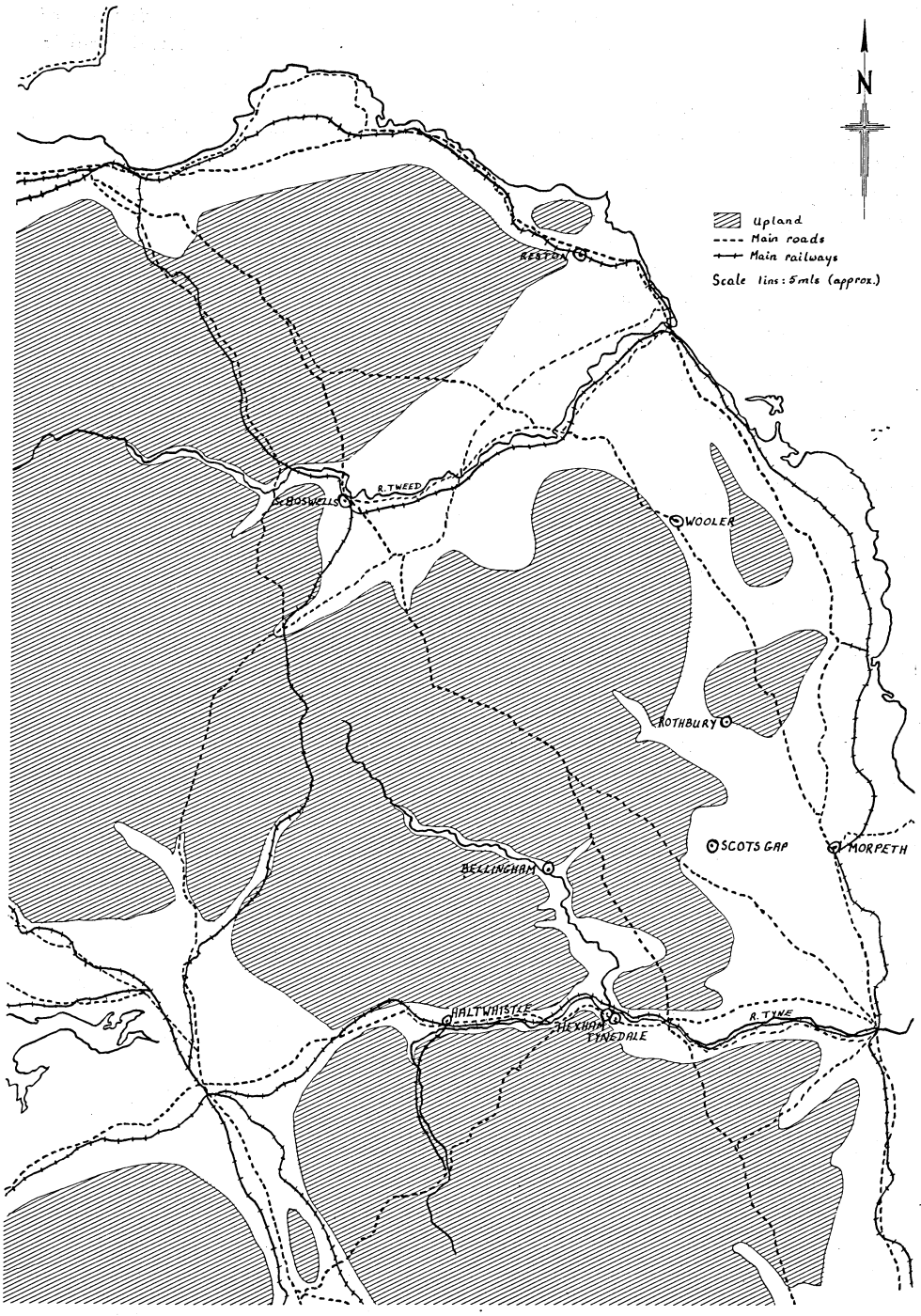
SUMMARY AND CONCLUSIONS

This report examines the assembly and dispersal of 18,421 single suckled beef calves at 17 separate auctions. Types of calf offered, as instanced by breed, sex, size and condition are considered, and an attempt is made to assess the effectiveness of the calf auction as a medium for price discovery. In addition information is analysed relating to buyers' requirements and management practices of producers and buyers.

It is concluded that:-

1. By no means the whole area supply of weaned calves enters the market at this stage whether through these auctions or in other ways. Some 34% of the total supply was retained for later sale or breeding purposes. Some flexibility in total supply in relation to prices prevailing was maintained, but several farms were forced to sell.
2. These auctions perform a considerable service in assembling small lots of calves from farms usually within a 25 mile radius; most farms send all their calves for sale to a single centre. Numerous types of calf are produced but each centre tends to attract only a limited range from these. Therefore, by no means all the marts are in direct competition for the whole supply. Some auctions are so popular that they can not accept all potential entries for sale on a particular day.
3. Buyers are most influenced as to prices they will pay by the subsequent costs they expect to incur against the somewhat rigid price imposed by the fatstock guarantees. Prices paid, therefore, depend on the intentions for disposal and the systems of management adopted to bring the calf to second sale, so that there is no identifiable difference between margins per calf later sold fat or store at different times. There is nevertheless much variation in individual performance within each system of management.
4. Buyers have fairly rigid plans as to the number and type of calves they intend to purchase, governed largely by the resources available on their own farms, although some are prepared to change plans slightly to take advantage of current market prices and there is a limited amount of impulse buying.
5. Most of the auctions are well advertised, widely known and patronised by buyers from Aberdeenshire to Kent, though their dispersal function is mainly within the North of England and Southern Scotland. The average number of calves purchased on single account per auction was 22, but this ranged at individual auctions from 4 to 32. Proportionately more of the smaller calves were taken by buyers from Northern England and Yorkshire than were bought to go to Southern Scotland and elsewhere.
6. Most purchases were made directly by farmers but at only three auctions were dealers notably inactive, their purchases elsewhere ranging from 15% to 48% of the calves sold.
7. Factors most influencing price were the size and condition of calves which in turn reflected differences in breed, sex and age. There seemed, however, to be a slight breed preference for the Hereford over the Aberdeen Angus type at all stages of growth. The effect of age on prices obtained was notable; for calves born from the previous December onwards prices fell sharply.

8. Allowing that these auctions take place within a price framework dictated by the fatstock guarantees and production grants, no evidence of serious market imperfection between auctions could be identified, and it is unlikely that any more accurate system of price discovery, in the absence of standardised grading of store stock, can be adopted.
9. Within auctions there is some indication of market imperfection, instanced by a general trend of low prices at the beginning of the day, rising to a peak and falling in the evening. There may be other distinguishable times of day, as for example the lunch hour, when prices are likely to fall.
10. There is no evidence to suggest that the number of calves offered for sale together has any influence on price.
11. Auctioneers' techniques of selling vary and may influence price within narrow limits.
12. These auctions provide a medium for remarkably accurate price discovery. Some individual offerings, however, will be sold at prices somewhat out of line with the general level. Only if acceptable standardised grades for store stock could be adopted would any lower cost system of pricing be possible.
13. Feeding practice in the production of the weaned calf has some effect on prices obtained. Earlier calving back to January gives rise to negligible increases in cost of feed.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Upland
Main roads
Main railways
Scale 1ins: 5mls (approx.)
RESTON
R. TWEED
BOSWELLS
WOOLER
ROTHBURY
SCOTS GAP
MORPETH
BELLINGHAM
HALTWHISTLE
HEXHAM
TYNEDALE
R. TYNE

CHAPTER 1

TRADE IN SINGLE SUCKLED CALVES IN NORTHERN ENGLAND

Introductory:

Until recently there has been no question that research focused on efficiency of production up to the farm gate was more likely to benefit national and farming welfare than investigations into the marketing of agricultural produce. Production probably still merits primary consideration, but in the contemporary context of mounting competition for markets and changing eating and buying habits it is no longer possible to neglect as a subject for research the economics of processing and distribution.

This study of the suckled calf industry in Northumberland, therefore, emphasises the problems of buying and selling. The work, however, can claim no more than to start an investigation which it is hoped will ultimately examine more exhaustively the whole process of marketing beef, from the transfer of store cattle between farms, through the fatstock auction, slaughtering, wholesaling and retailing to tests of consumer preference for selected products and services.

The majority of single suckled calves sold in the North of England are auctioned and the livestock auction, store or fat, is one of the most distinctive and widespread of our agricultural marketing institutions. On it the present pattern of our sheep and cattle production largely depend. Most transfers of store stock between rearers and feeders are effected through one or other of the established auction marts, which handled during the last year 64% of all fat sheep and 68% of our fat cattle.

At the same time, strong and conflicting views are held about the efficiency of the auction system as a mechanism for price discovery, which involves a proper assessment of a multitude of factors which can influence price at any sale on any day. Supply and demand nationally, in a particular mart, even at different times through the day, breed, sex, age and other less easily identifiable influences all conspire to produce differences in price between and within individual marts.

Controversy has focused mainly on price differentials at fatstock auctions so that these probably deserve study before any other livestock market at which open bidding determines price. Local interest, however, greater feasibility and a desire to begin at the beginning, suggested the sale of weaned calves as an appropriate starting point for a study intended to develop into research ranging over the whole field of beef marketing.

Production of single suckled calves for sale at 6 to 9 months as beef stores has long been a feature of North of England upland farming systems. More recently, herds of beef cows have become a part of many lowland businesses. Numbers of single suckled calves have been offered for sale in the autumn for at least 40 years. Before the war, several special auctions, dealing only in suckled calves, had been established. Since 1945, trade in this class of store beast has boomed and special auctions have multiplied at established centres. Some indication of the way in which the sales of suckled calves increased during the five years up to 1960 can be obtained from data made available by certain auction companies for comparable sales during the period.

Table 1 Number of Calves Sold at Comparable Sales at Seven Centres 1956 - 1960

	Haltwhistle	Hexham Auction Mart	Hexham (Tynedale)	Reston
1956	128	991	294	2861
1957	224	720	386	2867
1958	281	735	399	2869
1959	219	1127	424	3280
1960	191	1139	432	3417

	St. Boswells	Scotsgap	Wooler	TOTAL
1956	5402	484	1673	11833
1957	4753	1002	1994	11946
1958	5232	1421	1952	12889
1959	5811	1688	1933	14482
1960	5865	1864	2112	15020

The increase in trade between 1956 and 1960 was considerable. Almost half as many calves again were sold in 1960 as in 1956 at the seven centres represented in Table 1. More detailed records available for a longer perio for auctions at Reston and St. Boswells give an even more notable picture of the expansion in supply of suckled calves.

Table 2 Numbers and Average Prices of Calves Sold at Comparable Sales at Reston and St.Boswells

	Reston		St. Boswells	
Year	No.	£. s. d.	No.	£. s. d.
1931	193	Not available(1st special sale)	Not available	
1939	1433	10. 6. 6	Not available	
1946	878	16.16. 3	1678	17. 4. 0 (1 day)
1950	1503	22. 4. 4	3302	28. 5.11 (2 days)
1951	1361	27.14. 7	3579	29. 1. 4 (3 days)
1952	1666	37.17. 0	3644	35. 2. 4 (")
1953	2230	37. 2. 4 (2 days)	3904	39. 1. 1 ("))
1954	2631	34. 6. 4 (")	4406	36. 5.10 (")
1955	2527	39. 3.10 (")	4417	40.12. 4 (")
1956	2861	34.19. 6 (")	5402	35.17. 9 (")
1957	2867	46.13.11 (1 day)	4753	38.15. 8 (")
1958	2869	51. 2. 3 (")	5232	50. 0. 0 (")
1959	3280	44. 2. 1 (")	5811	43. 9. 6 (")
1960	3417	43. 3. 2 (")	5865	42. 1. 0 (")

The increasing supply was during the last two years associated with some decline in average prices paid. Some observers interpreted this as an indication that the supply was beginning to overtake demand. This is probably a no less acceptable explanation of lower prices than suggestions that they arose from artificially contracted demand by reason of lack of keep, or because inclement weather affected the quality of the calves.

Subsequent events, however, suggest that increasing supplies are meeting an increasing demand. To some extent this can be explained by increases in the support price for beef. One thing, however, is certain, that there is at present no sign of the supply reaching a peak. Out of 351 farmers replying to a question whether they would rear more or less calves in 1960-61, 132 said they would breed more, 196 the same number, and only 23 expected to have less calves than the previous year. Numbers of calves offered at sales in 1961 and 1962 show that these intentions were put to effect. New suckler auctions have also been instituted at marts where these were not previously held, so that there is now a season of suckled calf auctions from early October to early November during which there are few days when one can not bid for this type of weaned calf somewhere in Northumberland or Southern Scotland.

This concentration of a year's trading into a short period offers obvious advantages for an exhaustive study of production and marketing practice. Even with somewhat limited resources it is possible to record the pertinent facts about almost every animal sold. Moreover, price effects due to the passage of time are minimised. In addition, by starting an investigation into production and marketing practices at this stage, the task of relating prices to different methods of production before and after sale is simplified.

This report, therefore, while considering the functions of assembly and dispersal attempts firstly to study the relationship of price to the class of calf offered. Secondly it examines possible price effects of any imperfections inherent in the calf auction as a mechanism for pricing and trading. Thirdly it analyses the varying costs incurred in production and the ultimate intentions of purchasers for disposal and assesses the probable importance of buying patterns on production practices.

Scope and Method of Investigation:

All single suckled beef calves offered at autumn sales in the North have one characteristic in common; they are generally considered to be animals which will feed on to kill into high quality beef. The calf, however, may be one or other of a number of breeds or crosses, notably Aberdeen Angus, Hereford, Shorthorn, Galloway or Blue-Grey. Calvings may have taken place any time between the preceding September and May. The calves can be bred from in- or out-wintered cows, on hill or lowland farms. Cows will have been kept on varying planes of nutrition and their calves may or may not have received concentrate feed in the last weeks before sale. Some marts are noted for particular types, even breeds; others are less specialised but still give some prominence to a particular class of beast.

Such diversity adds interest to the study since it could allow comparison of many different types of calf produced by varying systems of management. At the same time it complicates any analysis to explain differences in price between individual sales or different auctions. There are some 20 special auctions at which single suckled beef calves reared in Northumberland might be sold, many of which differ in some degree as to the type of calf offered. Eight of these are in Southern Scotland and 12 in Northumberland.

This study is based on records obtained from 16 of these auctions held at 9 centres during October and early November 1960, and from one sale at which suckled calves were featured along with older store cattle, but not in sufficient numbers for it to rank as a special auction.

These auctions took place as shown below. The store cattle sale where suckled calves were recorded was at Rothbury.

Oct. 7	Hexham Auction Mart	1st Sale
" 10	St. Boswells	1st Sale
" 11	Reston	1st Sale
" 12	St. Boswells	2nd Sale
" 13	St. Boswells	3rd Sale
	Rothbury	Store Sale
" 14	Scotsgap	1st Sale
" 15	Wooler	1st Sale
" 20	Bellingham	1st Sale
" 21	Hexham (Tynedale)	
" 22	Morpeth	
	Bellingham	2nd Sale
" 26	Wooler	2nd Sale
" 27	Hexham Auction Mart	2nd Sale
	St. Boswells	4th Sale
Nov. 1	Scotsgap	2nd Sale
" 3	Haltwhistle	

The enquiry covered 19,756 calves offered, of which 18,421 were sold for £680,018. Of these 9,993 were bullocks and 8,428 heifers. Larger calves accounted for 3,205 of the sales, medium sorts for 5,616 and 9,600 were less well grown. Pure breeds or crosses were represented by 13,575 Aberdeen Angus, 2,584 Herefords and 1,683 Galloways. A further 579 calves were of other breeds, including Shorthorns, Red Polls, Highlands and a few dairy crosses, notably Freisians. Allowing that there were other days on which calves bred in Northumberland were sold, and that some of the marts visited drew cattle from Southern Scotland, these figures give a rough picture of the importance and characteristics of suckled calf production for sale on farms in the county.

At the auctions visited each batch of calves entering the ring was separately recorded. The detail in every case consisted of price, number sold, breed, sex and an independent estimate of grade in the three categories "A", "B" or "C". The grading was undertaken throughout the period by the same three workers operating wherever possible in pairs in order to obtain maximum uniformity in their assessments. Each batch of calves was graded as soon as it entered the ring to avoid as far as possible reference to the opening bid or the knock-down price. The actual grading was based on the price which calves similar, mainly in respect of condition and size, would have made at the first sale attended. Separate scales were adopted for bullocks and heifers corresponding to a rough estimate of the price differential for calves of different sex. Bullocks which would have made more than £50 were graded "A", between £40 and £50 "B", and less than £40 "C". "A" graded heifers would have made more than

£45, "B"between £35 and £45, and "C"less than £35. Since only three broad classifications were attempted and the workers concerned were experienced judges of livestock, it is claimed that their assessments, without being precise, were adequate for analytical purposes.

Each auction was broken down into half-hour periods to facilitate comparisons through the day. Changes of auctioneer were also noted and for most batches of calves the selling time from the auctioneer's introduction to the fall of the hammer was recorded together with the number of bids.

With this information it is possible to make some appraisal of the influence of various factors, including those inherent in the auction system, on prices realised. More data, however, was required to describe the nature of demand, whether from farmers or dealers, from the immediate neighbourhood or from further afield and to identify relationships between prices and systems of production or intended disposal by purchasers.

As a first step to this end, each mart office was visited and information obtained relating to buyers and the districts from which they came. Some auction companies were also able to furnish the historical background to their sales shown in tables 1 and 2.

Next every seller was circularised with a postal questionnaire asking the number of cows kept, their breed, that of the bull, disposals or retentions of calves other than through the recorded marts, the system of management with details of feeding the cows and any separate calf feed, also calving dates. In addition, farmers were asked to indicate whether their herds were expanding or contracting and to state whether they would have retained more calves had prices been lower by various amounts. Of 702 questionnaires sent out, 391 or 56% were returned, a very high rate of response, which clearly indicates the interest focused on this form of production.

Finally, in order to make some check on the accuracy of the returned questionnaires and to bring full costs of production into the picture, 44 sellers and 44 buyers were visited. The opportunity was taken at the same time to obtain information on such considerations as the giving of 'luck' money and transport costs over varying distances.

It is possible, therefore, in the following pages to make comparisons of prices between and within the marts and to relate those to characteristics common to all centres or associated with particular auctions as well as the class of calf offered and the system by which it was produced.

CHAPTER 2

CHARACTERISTICS OF SUPPLY

Production of single suckled calves may be undertaken with several different objectives regarding their ultimate disposal. Table 3 shows that 65% of all the calves produced on the 729 farms were sold as weaners through the special auctions and over 30% retained for later sale or eventually to enter the breeding herd. These percentages do not, however, disclose wide ranges in the proportion of total production sold or retained at individual auctions; at Haltwhistle 30% of the year's production was sold compared with 84% at Reston.

Table 3 Sales and Retentions of Weaned Calves on 729 Farms

	SALES				RETAINED					
	At Recorded Centres	At Other Centres	Privately	Total Sold	To Fatten	To Sell Store	To Sell Store or Fat	To Sell as Bulling Heifers	For Own Herd Replacement	To Increase Own Herd	As Breeding Stock but not Precisely Designated	To Rear as Bulls	Total Sold & Retained
No.	10502	1141	202	11845	1160	4007	227	277	341	83	23	95	18058
%	59	6	1	66	6	22	1	2	2	-	-	1	100

The following discussion deals with the processes of assembly and presentation for sale of calves at the special auctions.

Assembly: :

Table 4 demonstrates the difference in size of the individual auctions.

Table 4 Numbers of Calves Sold at Individual Auctions

Auction	No.	Auction	No.
Bellingham 1st Sale	755	Rothbury	32
Bellingham 2nd Sale	919	St. Boswells 1st Sale	2916
Haltwhistle	191	St. Boswells 2nd Sale	2424
Hexham Auction Mart 1st Sale	1139	St. Boswells 3rd Sale	525
Hexham Auction Mart 2nd Sale	517	St. Boswells 4th Sale	299
Hexham (Tynedale Auction)	432	Scotsgap 1st Sale	1026
Morpeth	598	Scotsgap 2nd Sale	838
Reston	3417	Wooler 1st Sale	2112
		Wooler 2nd Sale	281

The actual magnitude of the assembly function is illustrated by Tables 5 and 6, which show the number of farms, at varying distances from the marts, supplying each auction and the size of their consignments.

Farmers need not, of course, confine their sales to one auction or even to a particular centre. Selling on more than one day at the same place was not uncommon. Thus, of the farms showing at Bellingham,

Table 5 Number and Location of Farms Selling at Individual Sales

	Total No. Farms	% OF TOTAL FARMS DISTANT FROM SALE *			
		Less than 5 miles	5 to 10 miles	10 to 25 miles	Over 25 miles
Bellingham 1st sale	53	34	39	25	-
Bellingham 2nd sale	69	45	31	22	1
Haltwhistle	32	41	38	12	-
Hexham Auction Mart 1st sale	56	18	44	27	11
Hexham Auction Mart 2nd sale	40	7	33	48	10
Hexham (Tynedale Auction)	26	31	23	42	4
Morpeth	30	20	17	53	10
Reston	75	17	44	29	9
St. Boswells 1st sale	72	17	29	49	5
St. Boswells 2nd sale	100	13	29	41	16
St. Boswells 3rd sale	47	17	36	41	6
St. Boswells 4th sale	42	12	38	40	5
Scotsgap 1st sale	42	38	34	26	2
Scotsgap 2nd sale	42	52	31	17	-
Wooler 1st sale	68	24	44	32	-
Wooler 2nd sale	30	30	50	20	-
ALL SALES	52	26	35	33	5

* Where individual percentages total less than 100 the difference is accounted for by unmapped farms.

Table 6 Size Distribution of Entered Lots (%)

No. Calves in Lot	1 - 10		11 - 20		21 - 50		51 - 100		Over 100	
	Lots	Calves	Lots	Calves	Lots	Calves	Lots	Calves	Lots	Calves
Bellingham 1st sale	46	15	27	27	25	50	2	8	-	-
Bellingham 2nd sale	43	17	39	47	18	36	-	-	-	-
Haltwhistle	71	44	29	56	-	-	-	-	-	-
Hexham Auction Mart 1st sale	32	9	27	19	33	48	8	24	-	-
Hexham Auction Mart 2nd sale	59	23	28	31	5	12	8	34	-	-
Hexham (Tynedale Auction)	37	10	27	20	32	57	4	13	-	-
Morpeth	48	17	33	27	8	13	11	43	-	-
Reston	10	1	17	7	47	35	21	32	5	25
St. Boswells 1st sale	11	1	21	9	50	41	16	27	2	22
St. Boswells 2nd sale	25	7	34	21	33	44	6	19	2	9
St. Boswells 3rd sale	59	24	33	49	6	16	2	11	-	-
St. Boswells 4th sale	83	55	12	26	5	19	-	-	-	-
Scotsgap 1st sale	31	7	12	9	48	59	9	25	-	-
Scotsgap 2nd sale	31	12	32	26	34	51	3	11	-	-
Wooler 1st sale	17	3	29	14	36	36	15	33	3	14
Wooler 2nd sale	62	27	21	30	17	43	-	-	-	-
ALL SALES	36	9	27	18	28	39	8	23	1	11

Hexham, Scotsgap and Wooler, 18%, 6%, 29% and 17% respectively sold on two days, while at St. Boswells 10% of the farms sold on two days and 1% on three days. It was rare, however, for farmers to patronise two centres. Only 22 out of 745 farms sold at two centres covered by the survey, and none at more. Some sales would be effected at marts other than those recorded, but only 6% of total sales by farmers who answered the questionnaire were at marts outside the investigation.

The figures in Tables 5 and 6 should not, however, be taken to reflect precisely the popularity of individual marts. It is true that the seller's prime consideration in selecting an auction should be the relative probable demand and, therefore, the prices likely to be paid for his class of calf at the different centres. Nevertheless, transport costs and tradition will lead many sellers to select a centre not too distant. This largely explains why each mart has a reputation for a particular class of beast produced in its neighbourhood. It also means that calves of a different type are unlikely to meet a strong demand from buyers who have the local sort in mind.

Consequently, by no means all the centres included in this investigation can be regarded as having competed equally for the overall supply. Some marts are situated at a distance from their competitors, others are not. Again, some are natural geographical focal points for a particular, often narrow, calf supply area, while others draw their supply from a wide district, well served with roads and unbroken by hills. Moreover, such areas may be predominantly of hill or lowland, large or small farms, with an obvious influence on the number of sellers and the size of their entries. The figures in Tables 5 and 6 should be interpreted with these considerations in mind and with reference to the frontispiece map. Certainly they can not be taken to indicate that because one sale appears to be more popular than another it is necessarily a better place to sell all calves regardless of their type.

Differences in type are characterised by weight and condition, which in turn are generally recognised as dependent on a number of obvious considerations such as calving date, breed and plane of nutrition. Each mart has gained its reputation for a particular type partly because these factors are often associated with local conditions.

Table 7 shows the variation in type between auctions, demonstrated by the proportion of calves graded "A", "B" and "C". The effect of age on grade is shown by reference to the proportions of calves born in different months.

The highest proportion of small calves were sold in the south of the county. At these auctions large numbers of slow maturing Galloway calves were offered. This in addition to age would have influenced weight and condition. Breed characteristics of different auctions are shown in Table 8. Cross bred calves have not been separately distinguished. It should be noted, however, that a large proportion of the Galloway calves were Blue-Greys got by White Shorthorn bulls. No precise estimate of the proportion is available but 888 of the 1683 pure and cross Galloway calves sold were recognisably Blue-Greys.

Table 7 Percentage Distribution of Calves of Different Grade and Age in Total Sales at Individual Auctions (%)

	GRADES				CALVING DATES							
	"A"	"B"	"C"	Total	% Sample of Known Calving Dates	June to Oct.	Nov. Dec.	Jan.	Feb.	Mar.	Apr.	May to July
Bellingham 1st sale	2	3	95	100	18	-	2	2	13	59	19	5
Bellingham 2nd sale	-	3	97	100	31	2	6	8	13	34	32	5
Haltwhistle	-	2	98	100	39	16	16	5	21	20	15	7
Hexham Auction Mart 1st sale	10	26	64	100	33	4	10	21	25	33	7	-
Hexham Auction Mart 2nd sale	-	7	93	100	16	-	6	20	17	23	27	7
Hexham (Tynedale Auction)	1	12	87	100	12	-	12	23	8	38	19	-
Morpeth	3	12	85	100	9	21	12	8	13	16	27	3
Reston	36	38	26	100	12	3	23	42	18	13	1	-
Rothbury	-	6	94	100	N.A.							
St. Boswells 1st sale	38	53	9	100	15	2	26	43	17	10	2	-
St. Boswells 2nd sale	21	47	32	100	15	5	30	27	15	16	7	-
St. Boswells 3rd sale	10	44	46	100	17	-	6	10	55	23	6	-
St. Boswells 4th sale	-	11	89	100	8	-	4	4	33	38	21	-
Scotsgap 1st sale	4	19	77	100	17	4	11	17	46	17	4	1
Scotsgap 2nd sale	-	4	96	100	11	2	1	-	5	42	29	21
Wooler 1st sale	5	30	65	100	19	-	10	26	31	21	12	-
Wooler 2nd sale	-	4	96	100	16	-	2	-	13	11	74	-
ALL SALES	17	30	53	100	17	3	15	24	21	23	12	2

Table 8 Percentage Distribution of Different Breeds or Crosses in Total Sales at Individual Auctions

	Aberdeen Angus %	Hereford %	Galloway %	Other %	Total %
Bellingham 1st sale	58	36	2	4	100
Bellingham 2nd sale	-	-	95	5	100
Haltwhistle	-	-	98	2	100
Hexham Auction Mart 1st sale	58	13	21	8	100
Hexham Auction Mart 2nd sale	35	33	22	10	100
Hexham (Tynedale Auction)	48	32	14	6	100
Morpeth	67	25	-	8	100
Reston	83	15	1	1	100
Rothbury	60	31	6	3	100
St. Boswells 1st sale	100	-	-	-	100
St. Boswells 2nd sale	100	-	-	-	100
St. Boswells 3rd sale	11	65	6	18	100
St. Boswells 4th sale	87	1	2	10	100
Scotsgap 1st sale	77	19	2	2	100
Scotsgap 2nd sale	83	11	3	3	100
Wooler 1st sale	72	24	2	2	100
Wooler 2nd sale	78	16	-	6	100
ALL SALES	74	14	9	3	100

Presentation for Sale:

Sellers' practices regarding the presentation of their calves in the ring vary. Some attach more importance to uniformity of type within each batch separately sold. Others emphasise the number of animals in each batch, believing that there is some optimum which buyers favour. Thus, some hold that a truck load will be preferred, others that there is an advantage in selling their best calves singly. Some of the larger auctions, however, exert strong pressure on the sellers to present their calves in reasonably large batches. On the other hand, some entered lots are too small to allow this. Table 9 shows the distribution of batches of different size separately sold at each auction.

Table 9 Size Distribution of Batches Sold Separately (%)

No. Calves in Batch	1		2 - 5		6 - 10		11 - 15		Over 15	
	Batches	Calves	Batches	Calves	Batches	Calves	Batches	Calves	Batches	Calves
Bellingham 1st sale	28	8	55	53	16	34	1	5	-	-
Bellingham 2nd sale	30	11	61	66	8	20	1	3	-	-
Haltwhistle	46	23	50	62	4	15	-	-	-	-
Hexham Auction Mart 1st sale	24	6	53	49	22	41	1	4	-	-
Hexham Auction Mart 2nd sale	36	11	49	51	14	35	1	3	-	-
Hexham (Tynedale Auction)	20	6	58	54	20	35	2	5	-	-
Morpeth	31	7	39	29	20	35	9	24	1	5
Reston	15	2	34	16	27	31	17	33	7	18
Rothbury	40	13	40	34	20	53	-	-	-	-
St. Boswells 1st sale	17	3	32	16	32	38	12	24	7	19
St. Boswells 2nd sale	19	3	34	19	31	41	13	27	3	10
St. Boswells 3rd sale	33	12	55	58	12	30	-	-	-	-
St. Boswells 4th sale	44	15	38	37	16	41	2	7	-	-
Scotsgap 1st sale	28	6	36	25	30	55	6	14	-	-
Scotsgap 2nd sale	28	7	44	37	24	45	3	9	1	2
Wooler 1st sale	23	4	32	19	31	44	11	25	3	8
Wooler 2nd sale	39	13	46	47	14	35	1	5	-	-
ALL SALES	25	5	43	29	23	38	7	19	2	9

CHAPTER 3

CHARACTERISTICS OF PURCHASE

The majority of suckler calves are bred to be reared and fattened for beef. However, the whole cycle rarely takes place on any one farm, and the special suckler sales effect the transfer from the rearing to the store and fattening farms. While these sales are the end of the breeder's work, they are only a beginning for the buyer.

Though the minimum price for beef is generally guaranteed, it is possible to obtain some premium for quality. Buyers will, therefore, to some extent have varying estimates of possible resale prices. Nevertheless, the minimum guaranteed price tends to become a maximum realisation price. Therefore it can be assumed that buyers' actions are mainly influenced by their estimates of costs to be incurred against this fairly rigid realisation price.

In spite of very wide differences in the management of bought sucklers, the largest single item of cost is almost invariably the purchase price of the calf and slight changes in this can have an appreciable effect on subsequent profits. Since the market price is so vitally important very few farmers rely on making all their purchases at any one mart year after year. Instead the majority regularly attend either two or three centres and a few patronise four or more, though this does not mean that they always buy at each in every year. Out of 41 farmers four did not normally buy sucklers but had been tempted into trying them by the season's low prices. Twentyfive farmers had two or three centres where they bought calves fairly regularly, but in this year 33 actually purchased all their requirements at only one or two marts. By visiting a number of sales each individual farmer may hope to buy where the price suits him best, but the fact that several buyers attend more than one mart may prevent prices at any one auction getting too far out of line with the rest.

Buyers' Requirements and Intentions:

Replies to the questionnaire suggest that most farmers go to market with a clear idea of the type of animal they want and that they are reluctant to buy anything else. As far as size was concerned 26, out of 36, always bought a particular size of animal. Thirteen out of 41 farmers made a practice of buying only bullocks, some from preference, others because heifers would have created management problems when bulls were running with suckler herds on their own or adjoining farms. A further five buyers preferred bullocks and only very occasionally took heifers, while six never bought bullocks either considering heifers more profitable or because they were to be kept for sale as bulling heifers. Eight farmers always bought both bullocks and heifers. Some were breeders who carried their own calves on and bought in more to fill up the yards, others preferred bullocks but bought some heifers to keep down the overall cost and in two instances bullocks were needed to run on land adjoining suckler herds. Only nine had no preference about the sex of the animals, taking whichever seemed to be the lowest in price.

Out of 42 farmers exactly half said that their choice of breed was completely rigid and confined to one or sometimes two breeds. Where the choice was restricted to one it was either Aberdeen Angus or Blue-Grey. Combinations were on the one hand Aberdeen Angus and Hereford, and on the other Galloway, Galloway crosses and Blue-Grey. Sixteen farmers claimed that they had a breed preference but were not bound by it. However, closer probing revealed that in most of these cases the alternatives were often very restricted. Herefords and Aberdeen Angus were acceptable substitutes, as were Galloways, Galloway crosses and Blue-Greys, but only three farmers would have been prepared to substitute between these two groups. Only five farmers were completely flexible about the breeds they bought, buying anything which looked suitable, including replacement calves which were often dairy crosses.

Over the years many farmers tend not only to buy the same type of calves from the same marts but also to patronise the same sellers. Out of 41 farmers 24 deliberately tried to repeat purchases from certain farms from which they had bought in previous years; indeed one would only buy from one or two particular farms. Seventeen claimed that they did not mind where their animals came from, but these included four new buyers and, of the remainder, if they did not have favourite breeders, at least some knew those they particularly wished to avoid.

The overall impression is that most farmers make fairly firm plans for purchases and buy accordingly but a few are prepared to modify these to some extent, and only in a few cases are the animals bought before detailed plans are made.

Clearly the broadest distinction between different possible buyers' plans would be whether they intended to fatten the calves on their own farms or to resell them as stores. The fat cattle were sold at varying lengths of time after the suckler sales; a few out of courts the first winter, most during the subsequent summer off grass, and the remainder during a second winter as they reached the desired degree of finish. The store cattle, however, were most often sold at the special autumn sales a year after purchase, but in a few cases they were sold the next spring and one buyer kept them until the autumn sales two years later. The most common system of store raising is relatively inflexible. Calves are bought regularly at special suckled calf auctions and sold as regularly at particular store marts.

Table 10 shows that prices paid for calves intended for direct fattening were more often in the higher ranges than those bought for an initial store period. Nevertheless there were appreciable numbers of low priced calves bought for fattening by the purchaser, and of high priced calves bought to be resold as stores. Since almost all calves are intended ultimately to be fattened, these wide distributions of prices both for calves to be fattened directly or to be resold as stores are obviously the result of variation between the purchaser's production plans. These will influence the type of calf purchased. Thus, all the cattle to be fattened directly were early maturing Aberdeen Angus or Hereford crosses and went to farms in recognised feeding areas. Cattle to be stored, however, were of two types. Those to be sold in the spring were all Aberdeen Angus

or Hereford and most went to lowland farms. Over half of those to be sold the following autumn were the slow maturing Galloway type and were bought by upland or hill farmers.

Table 10 Distribution of Purchase Price of Calves to be Sold Fat or Store

Purchase Price of Calf	Number of Animals Sold					
	Fat	%	Store	%	Total	%
Under £20	7	1	14	5	21	2
£20 - £35	204	23	97	37	301	26
£35 - £45	265	29	115	44	380	33
Over £45	418	47	38	14	456	39
Total	894	100	264	100	1158*	100

* Excludes 99 home bred calves

It might be expected that cattle directly fattened would have made higher prices than those sold as stores. On average this was indeed the case, but again there were larger numbers of store cattle which sold for more than several of the fat animals. On reflection, however, it will be recognised that most of the fat animals would have obtained a premium per cwt. for quality, while numbers of the store cattle would be in very forward condition ready to be carried to higher weights at which a lower quality premium would be paid.

Table 11 Distribution of Prices Obtained for Fat and Store Animals at Second Sale

Sale Price of Animal	Number of Animals Sold					
	Fat	%	Store	%	Total	%
Under £55	6	1	53	16	59	8
£55 - £65	119	28	124	36	243	31
£65 - £75	221	51	124	36	345	45
Over £75	85	20	41	12	126	16
Total	431	100	342	100	773*	100

* Excludes 484 animals where individual prices not known.

Since management of the weaned calf after purchase and the time it was kept by the purchaser varied considerably, it is not surprising to find wide ranges in costs and returns for all types of production. Despite this variation it is possible to distinguish three broad systems commonly used to grow on the weaned calf.

1. Cattle sold as stores the autumn after purchase (8 farms).
2. Cattle sold fat off grass the summer after purchase (14 farms)
3. Cattle sold out of courts the spring after purchase (6 farms).

Data of costs and returns relating to these systems were obtained from the numbers of farms shown. No full comparison can be justified

between subsamples as small as these, but details of individual performance are given in Appendix A.

Apart from the initial purchase price of the calf the most important item of cost is feed. This, however, varies within wide limits from farm to farm, partly due to differences in size of the calves but mainly to variations in the type of ration fed and the length of winter feeding. Most of the calves are housed as soon as they are bought, to prevent them losing their calf 'bloom', but the date for turning out in the spring is more variable, both between farms and between years, depending upon the weather and the district as well as upon grassland management.

Winter feeding rations closely reflected differences between purchasing farms. All the cattle to be grass fattened and most of those to be sold in the spring went to farms with a considerable arable acreage. On these farms, though the quantities of each food varied considerably in individual cases, most of the rations consisted of hay, roots, oats or barley and a little bought concentrate. Occasionally straw or silage replaced some of the hay or roots but a fairly typical winter's ration to grow these calves on would be:-

20 cwts. hay at 6/6d.	£6.10. 0
30 cwts. roots at 2/6d.	£3.15. 0
4 cwts. home grown cereals at 14/-d.	£2.16. 0
1 cwt. bought cake at 33/-d.	£1.13. 0
	£14.14. 0

In contrast, most of the farmers who bought calves for sale as stores in the autumn had no arable land. When grown, roots and cereals were fed, but constituted a smaller part of the ration than on the arable farms. In most cases, however, these farmers had to rely entirely on purchased concentrates and the diet was much more restricted. For these calves a winter's ration might consist of:-

25 cwts. hay at 6/6d.	£8. 2. 6
2 cwts. bought concentrates at 33/-d.	£3. 6. 0
	£11. 8. 6

With either system of management the quantity of concentrates fed, whether home grown or bought, had most influence on the cost of wintering.

During the summer all the cattle in the first two groups were grazed but the quality of the grass varied from young and good feeding pastures to very poor rough grazings. It is impracticable to evaluate these differences accurately. All that can be said, therefore, is that the fattening cattle would normally be on better quality grazing than the stores.

No attempt is made to draw any conclusions about the relative profitability of the three different systems of growing on the calves from so small a sample. The results in Appendix A, however, indicate that good results may be possible from any of these systems. Variation in net margins within groups of farms with the same system is greater than between the groups.

It would be interesting to identify any effects due to breed or sex. None of the Blue-Grey or Galloway crosses were to be directly fattened, neither on six farms which were fully costed nor on five other farms buying similar calves which provided less detailed information. Again, half the eight farms selling stores in autumn had Blue-Greys. These four farms provided both the best and the worst individual results in the group, which may suggest that breed has a less vital influence on profits at this point than it has at the suckler calf production stage.

It is equally difficult to find any advantage in profitability for purchases of bullocks or heifers. In the group selling grass fattened cattle, where five farmers bought only bullocks and four heifers, the results were completely random; indeed, the two farms providing the best and worst financial results for the whole sample were both fattening bullocks off grass. All the farmers keeping heifers, however, believed that, even if profit per head was the same as for bullocks; and one or two thought it was higher; the total profit from the enterprise would be greater than with bullocks as more could be kept on a given quantity of feed.

Purchasers' Actions:

Since buyers' requirements can not be quantified from the available data, we do not attempt to relate these to their actions in the market. Certain differences, however, between individual auctions, which may arise from the nature of buyer preferences, can be reasonably well distinguished, though a satisfactory assessment of relative strength of demand is not possible. The attendances, the number of actual buyers and the size of their purchases (Table 12) afford only a picture of the pattern of purchases.

Table 12 Attendance, Numbers of Buyers and Average No. Calves Purchased per Buyer

	Largest Counted Attendance No.	Buyers No.	Calves No.
Bellingham 1st sale	204	56	13
Bellingham 2nd sale	268	107	9
Haltwhistle	183	40	5
Hexham Auction Mart 1st sale	318	53	22
Hexham Auction Mart 2nd sale	163	42	12
Hexham (Tynedale Auction)	200	47	9
Morpeth	194	35	17
Reston	427	107	32
Rothbury	N.A.	7	5
St. Boswells 1st sale	336	104	28
St. Boswells 2nd sale	260	102	24
St. Boswells 3rd sale	194	50	7
St. Boswells 4th sale	122	34	4
Scotsgap 1st sale	209	68	15
Scotsgap 2nd sale	156	54	16
Wooler 1st sale	360	105	20
Wooler 2nd sale	163	38	7
ALL SALES		797	22

The figures in Table 12 do not disclose the number of actual bidders, nor, in the absence of demand schedules can one know how many buyers there would have been at individual sales had prices been higher or lower. It can only be said that, taking all the marts together, trading appears to have been reasonably active and the demand strong. This is argued from the fact that, of 37 buyers interviewed, 15 said they would have bought the same number and class of calves had prices been higher by an unspecified amount, 15 would have taken fewer, 4 smaller, and 3 both fewer and smaller animals. Of 38 purchasers an even lower proportion would have operated differently had prices been lower. In such circumstances, 20 would have bought the same number and class of calves, 5 more, 8 larger, and 5 both more and larger beasts.

Various other rough indications of level of demand suggest themselves. The validity and significance of some of these are examined in Chapter 5. Thus, the number in attendance at the ringside may bear some relation to the number of potential buyers; the rate of selling may tell something of the state of trade; the proportion of total calves "passed out" will show how well sellers' estimates of values are equalled by the bidding; relative numbers bought by dealers, with their acknowledged eye for a bargain, may give some idea whether calves were relatively low or high in price; and the proportion of total purchases leaving the immediate vicinity could suggest how widely a sale is patronised by buyers.

Of these, however, the two latter features appear to be as likely to reflect the nature as the level of demand. Buyers from East Anglia or the North of Scotland, for example, may have travelled the distance in search of a particular class of animal, or looking for something cheap. It is equally true that dealers may buy at one time because calves are low in price, or at another because they have a commission for a particular type of beast. Again, they may miss a small sale because of a known insufficient supply to fill their needs, while they may attend a large auction because of the wide choice known to be available.

The other possible indicators of demand strength also have their defects. At any auction many at the ringside are only spectators. Interest in these sales is such that at any time many sellers, stockmen, transport drivers and others will watch the proceedings without ever making a bid. Further, the ratio of these spectators to potential buyers may vary, because, for example, of the number of calves offered, the location of the mart, or the day on which the auction is held. The fact that casual buyers may be more or less numerous for similar reasons is not likely to be an important mitigating circumstance.

The actual time taken to sell may well be a better indicator of demand level. It is a truism that "the best seller is a good trade". Even so, the figures in Table 13 are again purely descriptive of this characteristic of individual sales. Auctioneers differ in their techniques. There was, in fact, almost as much difference between the selling rates of two auctioneers at one auction as between the fastest and slowest average rates of selling at separate auctions. Perhaps more important, the pressure to sell fast will not be as great when only 200 calves are to be disposed of as with a catalogue containing 2000 animals or more.

Table 13 Number of Batches Sold per Hour at Individual Sales

Bellingham 1st sale	44	St. Boswells 1st sale	53
Bellingham 2nd sale	47	St. Boswells 2nd sale	51
Haltwhistle	36	St. Boswells 3rd sale	49
Hexham Auction Mart 1st sale	50	St. Boswells 4th sale	43
Hexham Auction Mart 2nd sale	39	Scotsgap 1st sale	36
Hexham (Tynedale Auction)	45	Scotsgap 2nd sale	37
Morpeth	44	Wooler 1st sale	41
Reston	52	Wooler 2nd sale	52

Finally, although the proportion of unsold to total calves offered might seem to be a clear indicator of the state of trade, this too may not be an entirely satisfactory guide. Farmers may pass their calves out at an early auction when confronted for the first time with prices lower than their own estimate of value, largely based on the previous year's trading, only to accept the same price at a later date. Besides this, one auction may draw a higher proportion than others of calves from farms where no accommodation or winter keep is available. In such a case the proportion of calves unsold is likely to be lower than elsewhere irrespective of trade. It may not be without significance, however, that the proportion of unsold to total calves offered at individual auctions ranged from 0 to 22%.

To complete this chapter some consideration is given to the nature of demand, insofar as this can be judged, by the proportions of farmers and dealers buying and the immediate destination of their purchases.

We have already observed that heavy buying by dealers may be some indication of low prices. Because of other considerations, however, we cannot put forward comparative proportions of total calves bought by dealers as good guides to relative prices at different auctions. In the first place there is no universally accepted definition of a dealer, and though in making the distinction between dealers and farmers we have been advised by the auctioneers, each of these may have his own basis of classification. More important, the presence of a hard core of dealers in the ring is generally accepted as an asset to any auction, though not necessarily as a spur to prices. Dealers tend to put a floor to the trade and they often supply farmers in areas distant from the mart. Their presence, therefore, would appear to strengthen the demand for some classes of calves, even though large scale purchases on their account may indicate a weakness in prices. The figures in Table 14 should, therefore, be interpreted with these considerations in mind.

Taking all auctions together, dealers purchased almost a fifth of the calves sold. This spotlights the complicated process by which store cattle are transferred from the rearer to the feeder, and both the challenge and the difficulties which face the would be integrator of beef production. Dealers bought proportionately more of all the smaller, "C" graded, calves (21%), than of the medium, "B" graded, sorts (18%) or the larger "A" beasts (16%). At these auctions, however, by comparison with the previous and subsequent years, the smaller beasts made a relatively lower price, while the larger snimals showed less difference. There is, nevertheless, evidence in these figures, if such is needed, that dealers perform the useful function of putting a floor to prices.

Table 14 Proportion of Total Calves Bought by Dealers

	% Total Purchases		% Total Purchases
Bellingham 1st sale	20	St. Boswells 1st sale	15
Bellingham 2nd sale	2	St. Boswells 2nd sale	22
Haltwhistle	4	St. Boswells 3rd sale	16
Hexham Auction Mart 1st sale	25	St. Boswells 4th sale	48
Hexham Auction Mart 2nd sale	23	Scotsgap 1st sale	16
Hexham (Tynedale Auction)	5	Scotsgap 2nd sale	44
Morpeth	20	Wooler 1st sale	14
Reston	24	Wooler 2nd sale	21

The proportions which dealers bought of total calves sold to different districts beyond Northern England and Southern Scotland show how they extend the buying area. Only 6% of the calves bought locally were purchased by dealers, but their share of those going to other areas, except the Midlands, which took fewest, was considerably greater. They bought 43% of the calves going to East Anglia, 57% of those for Yorkshire, and 71% of all animals destined for the North of Scotland.

Buying from beyond Northern England and Southern Scotland was indeed a contributory factor to the success of many of these sales. All auctions were advertised in the English and Scottish farming press and had advance notices in dailies with circulations in Yorkshire and Scotland. Some auctions were advertised in daily newspapers in the North of Scotland and East Anglia. Those who believe in the power of advertising would no doubt remark that the lowest proportion of total sales was to the Midlands where there were least local press notices. This area, however, includes such counties as Leicester, Nottingham, Warwick, Shropshire and Hereford, in which competition from the Welsh border and other traditional supply areas may be higher.

Table 15 Proportion of Total Calves Sold to Different Districts (%)

	Local	N. Scotland	Yorks.	Midlands	E. Anglia	Unknown
Bellingham	89	-	4	-	3	4
Haltwhistle	72	-	-	-	-	28
Hexham Auction Mart	49	-	36	-	12	3
Hexham (Tynedale Auction)	92	-	3	-	-	5
Morpeth	66	6	13	15	-	-
Reston	62	14	6	1	14	3
St. Boswells	59	25	4	2	9	1
Scotsgap	63	11	13	4	8	1
Wooler	70	6	13	3	1	7
ALL SALES	64	13	9	2	8	4

The importance, for some of these auctions, of selling to a wider area is emphasised further by the higher proportion of larger calves in total purchases from beyond Northern England. This supplements the fairly strong demand for this class of calf from Southern Scotland, which includes

the Lothians, to supply which, production of these forward animals may first have been undertaken. Northern England and Yorkshire take a far greater proportion of small calves which would traditionally have a store period and perhaps change hands again before being fattened. It must be admitted, however, that recording the initial destinations of calves may well hide shipments of smaller calves out of the North of England by local dealers.

Table 16 Proportion of Area Purchases of Calves in Different Grades (%)

	North England	South Scotland	North Scotland	Yorks.	Midlands	E. Anglia
Grade "A"	12	30	20	5	20	20
Grade "B"	23	33	34	26	25	29
Grade "C"	65	37	46	69	55	51
	100	100	100	100	100	100

CHAPTER 4

FACTORS INFLUENCING VALUE

Prices paid for calves are based on their probable value at later sale either as fat or store beasts, and estimates of the cost likely to be incurred up to resale. It has already been accepted that the most important consideration in this respect must be the size and condition of the suckled calves. The system of grading described on page 9 was intended primarily to reflect these characteristics. Thus, the average prices obtained for all calves of different grades are a direct indication of the importance of size and condition in relation to price:-

Grade "A"		Grade "B"		Grade "C"	
No.	£. s. d.	No.	£. s. d.	No.	£. s. d.
3205	53.18. 6	5616	41. 9. 8	9600	28.11. 3

These grades, which reflect size and condition, would be generally recognised as resulting from such considerations as age, breed, sex and plane of nutrition. This chapter, therefore, analyses the relative importance of the first three of these factors. Plane of nutrition is often associated with calving date, breed, and type of farm. It is also much more difficult to measure precisely, though it is an obvious feature of management which will affect the price obtained and the costs of production. For this reason its effect is described in Chapter 6 together with other production considerations.

Sex:

Sex may have little importance from the farm management point of view; nevertheless, it is worth noting the price differentials which were found between bullocks and heifers resulting from the fact that heifers are normally smaller and not expected to reach the same finishing weights.

Table 17 Average Selling Prices for Bullocks and Heifers

	Bullocks		Heifers	
Grade	No.	Av.Price	No.	Av.Price
"A"	2223	56.17. 9	982	47. 4. 4
"B"	2896	45. 2. 6	2720	37.12. 3
"C"	4874	30.17. 1	4726	26. 4. 0
Total	9993	40.15. 8	8428	32. 7. 5

Therefore Table 17 shows differences in price between bullocks and heifers such as might be expected. The difference between the sexes of "A" and "B" calves were similar, but for the "C" calves there is a narrower gap. The latter may well be biased by the fact that a larger proportion of the calves graded "C" were Galloways or Blue-Greys. In

either case many of the heifers will have been bought as breeding stock and, in consequence, may have commanded a higher price than they would as beef stores. For this reason Galloways have not been included in Table 18. This table compares the difference between average prices for Aberdeen Angus cross bullocks and heifers of different grades with similar figures for Herefords. It shows greater differences in each instance for Aberdeen Angus than Herefords, which may support the view held by many that Hereford heifers grow faster.

Table 18 Average Price Difference between Bullocks and Heifers

Grade	Aberdeen Angus X	Hereford X
"A"	10.11. 3	7. 9.11
"B"	7.13. 4	7. 4. 1
"C"	6. 0. 6	5.12. 3
Total	10. 4. 1	7.13. 7

Calving Date:

Of all the factors under the farmer's control which can influence the price obtained, age can be shown to be most important. Since all sales take place at roughly the same time, and the calves are all relatively young, calving dates have a marked effect on their value in the ring. Table 19 shows just how great this effect can be. Calves sold were born between July 1959 and July 1960, though the majority from November to April. Most of the calves born in April would be sold with the subsidy to be claimed by the buyer. Thus the price paid represents more than the actual cost to the purchaser by the amount of the calf subsidy. If allowance is made for this, the price differential for younger calves is even more striking than it appears in the table.

Table 19 Effect of Calving Date on Price for All Calves and Major Breeds

Calving Date	All Calves		Aberdeen Angus X		Hereford X		Galloway X	
	No.	Av. Price	No.	Av. Price	No.	Av. Price	No.	Av. Price
Nov.	73	45.11. 4	52	46.11.11	4	62. 0. 0	14	38.10. 4
Dec.	401	48. 2.11	305	48.13. 5	38	53.19. 4	53	41.16. 7
Jan.	737	43. 3. 6	625	43. 5. 5	50	51.15. 7	47	35. 0. 9
Feb.	663	35. 0. 0	459	34.18. 9	70	41.17. 0	110	31.12. 3
Mar.	732	29. 3.10	404	30. 2. 0	112	31.10.10	173	25.14. 9
Apr.	379	26.14. 6	171	26. 7.11	51	37. 6.11	131	23. 6. 3
May-July	74	20.17. 1	25	22.17. 2	5	25. 4. 0	40	18.19. 8
Total	3059	36. 3. 9	2041	38. 0. 4	330	40.10.11	568	28. 8. 6

Although each shows the same trend individually, a comparison of the three major breeds reflects their relative maturing rates. The average price for all calves was £36, but to reach this a slow growing Galloway would have had to be born in early January, an Angus in early February and a Hereford in late February. There is a much more marked addition to price with increasing age for the quick maturing Angus and Hereford calves than for the slow growing Galloways.

Breed:

Most of the calves were cross bred but could be classified mainly as Aberdeen Angus, Hereford or Galloway type. The remainder, some 579 out of the total of 18,421 sold included pure bred and cross Shorthorn, Friesian, Highland, Lincoln Red, Red Poll, Devon, Ayrshire and, from one farm, British White cattle.

Since most of the calves were crosses, often out of cross cows, the bull assumes considerable importance in relation to the type of calf bred.

Table 20 Distribution of Bulls by Breed

Breed	In sole use	In use with 1 other breed	In use with 2 other breeds	Total
Aberdeen Angus	206	53	4	263
Hereford	36	27	5	68
Galloway & Belted) Galloway)	34	17	3	54
White Shorthorn) & Shorthorn)	31	30	6	67
Other *	2	5	-	7
No. of herds	309	66	6	381

* Includes Friesian, Devon, Lincoln Red and British White.

Table 20 shows that two-thirds of all the farms which used only one breed of bull kept the Aberdeen Angus. The rest showed little variation in preference between Herefords, Galloways or Shorthorns. Amongst the latter, particularly on Galloway herds, the White Shorthorn was important, but replies to the questionnaire did not always distinguish between this and the Beef Shorthorn. Where two breeds were used the commonest combinations were Aberdeen Angus and Hereford (25 farms) or Aberdeen Angus and Shorthorn (19 farms). Galloways and White Shorthorns were used together on 10 farms.

Apart from Galloways, pure bred cows were the exception; for example, many of the cows classified in Table 21 as Aberdeen Angus would be known locally as Irish Blacks, animals with Shorthorn and Angus blood, considerably larger than the pure Aberdeen Angus. The classification in Table 21 therefore is according to the predominant beef breed in the cow's pedigree, although almost all crosses will include some Shorthorn blood.

As with bulls, Aberdeen Angus type cows were of overwhelming importance, though the pure Galloway and its crosses, especially the Blue-Grey, accounts for a high proportion of the cows. This, however, being particularly suited to hill districts, has a distinctly regional popularity.

The importance of the Hereford may be somewhat under-estimated in that many of the herds classed in Table 21 as of one breed included a small proportion of Herefords. In addition, a relatively high proportion of the mixed herds contained Herefords. This breed is comparatively new in the North of England and it is possible that its inclusion in mixed herds represents a stage in transition from one breed to another.

Table 21 Distribution of Cows by Breed

Breed or Cross	As main breed	As 1 of 2 main breeds	As 1 of 3 main breeds	As 1 of 4 main breeds	Total
Aberdeen Angus	175	39	29	4	247
Galloway & Belted Galloway)	50	21	14	2	87
Blue-Grey	31	8	13	2	54
Shorthorn	13	22	24	3	62
Hereford	10	19	14	3	46
Highland	3	4	6	2	15
Other *	6	5	2	-	13
No. of herds	288	59	34	4	385

Herds are classed as one breed if $\frac{3}{4}$ or more are of that breed.
* Includes Ayrshire, Friesian, Devon, Lincoln Red, Red Poll and British White and their crosses.

However this may be, the influence of breed on selling price does show a slight advantage in favour of the Hereford if the overall advantage for the "A" and "B" grade cross Galloways in Table 22 is discounted as being due to the influence of breeding stock. It is, however, well known that there is a specialised demand for the Blue-Grey store beast.

Table 22 Average Prices for All Calves and for Three Major Breeds

Grade	All calves: No.	All calves: Av. Price	Aberdeen Angus X: No.	Aberdeen Angus X: Av. Price	Hereford X: No.	Hereford X: Av. Price	Galloway X: No.	Galloway X: Av. Price
"A"	3205	53.18. 6	2653	53.17. 0	488	55. 0.10	32	55. 9. 4
"B"	5616	41. 9. 8	4608	41. 3. 0	775	42.10. 5	134	43.19. 5
"C"	9600	28.11. 3	6314	28.18. 3	1321	30. 2. 0	1517	26. 6.10
Total	18421	36.18. 4	13575	37.18.10	2584	38.10. 9	1683	28. 6. 0

CHAPTER 5

PRICING AND INSTITUTIONAL ASPECTS OF AUCTION MARTS

The services which these auctions perform in assembly and dispersal of suckled calves have been examined in Chapters 2 and 3. The chief merit claimed by protagonists for the auction system, however, is that prices are determined by free bargaining between buyers and sellers. It is said that there is less danger of prices being imposed by either interest when a number of buyers bid for the stock and sellers control their product up to the time the hammer falls. Indeed it was because of dissatisfaction with the operations of agents who sold cattle on commission at the old fairs that the auction system originally developed.

This chapter, therefore, examines the validity of such claims against the background of the economic concept of market perfection. At the outset, however, it must be recognised that prices are not such as would be obtained in a free market. Since the fat beast has a guaranteed support price which tends to be a maximum, and direct subsidies are paid to the calf rearer, demand is not directly derived from the actions of final consumers, nor does supply represent the response of producers to consumer demand. Demand in these markets will therefore be related in the main to feeders' costs since an unlimited number of fat animals can be sold at the guaranteed price.

These costs will depend on other available supplies of store cattle and on possible alternative use of resources which can be used for cattle fattening. These considerations cannot here be fully examined. Nevertheless, in view of changes in supplies of Irish stores, growing importance of light weight high quality fat cattle and relative price changes of alternative products in recent years, it seems that artificial stimulation of the supply of suckled calves by direct subsidy could not easily create conditions of over supply in these markets. It is, nevertheless, within this institutional market framework created by subsidies that market perfection is discussed in the following pages.

Livestock auctions in common with other price determining institutions can only be expected to approximate the theoretical conditions of perfect competition. Thus, the supply of calves at these auctions is by no means of uniform quality, nor will differences be universally recognised. Again, numbers of active buyers can vary considerably and several sellers may be forced to accept whatever price they are offered. Though 127 out of 333 farmers stated that they would have retained more calves had prices been lower, and therefore had some degree of flexibility to take advantage of high prices or to hedge a falling market, nevertheless numerous respondents stated that because of lack of accommodation or winter keep they were forced to sell. A further consideration is that demand is derived rather than actual, so that prices paid are dependent on collective estimates of the quality of the calves, of present and future supplies of all store cattle, of further costs to be incurred in feeding and of future prices for finished cattle to be sold anything up to 18 months ahead. In

addition sellers did not have complete freedom of choice between all auctions as two centres were so popular that they could not accept all possible entries. Finally, some of these auctions are at nationally known centres, where regular disposals of sheep and cattle occur. Others have a more local trade, at yards where only a few special auctions take place at certain seasons. All, however, are run on somewhat traditional lines, though perhaps no more so than many non-agricultural sales with a local supply, attended mainly by specialists. It would be easy, therefore, to over-estimate the effect of differences in organisation or the provision of amenities on the success of individual sales. Imperfections in the market might be expected to occur because some participants know less than all the facts which could be available about all the stock offered. In fact, these need not arise when the majority of buyers are experts with special local knowledge. Again, only the most inclement weather is likely to deter countrymen from attendance because of amenities which might not satisfy townsmen. Artificially reduced demand for this reason is likely, therefore, to be rare, though it is generally accepted that it can occur. We would, however, suggest that at least some of the uncertainty with which traders are necessarily faced might be dispelled if more detailed cataloguing were possible, calves were run over a weighbridge, and lot numbers were as regularly and prominently displayed at all sales as they are at some.

It is recognised that there would be problems involved in cataloguing details, for example of calving dates and the class of land on which the calves had been reared, since this would have to be at short notice and the information might not always be readily available. Equally, there will be some who question the value of weight in judging a store beast at this stage, and place far more importance on their assessment of how the calf will 'do'. At the same time, to adopt these suggestions would be to follow the modern trend which eliminates as far as possible the exercise of judgement and substitutes the use of facts in farming practice.

We do not believe, however, that such institutional and organisational differences between the marts, even though these were considerable, were likely much to influence trade. No attempt, therefore, will be made to allow for them in the analysis.

Quality variation alone precludes any refined price analysis of these auctions. The following examination of the effectiveness of the auctions as price determining institutions must therefore depend on certain broad assumptions. These are that estimates of total supply will vary little throughout the same short period of six weeks each year during which virtually the whole year's supply of this type of calf from an important production area flows steadily onto the market, and the demand derived for a final product to be marketed 6 to 18 months later is unlikely to show much change during so short a space of time. On these premises prices should not vary greatly for the same class of animal between auctions, nor at individual auctions. Any large differences in price could then only be explained by market imperfections inherent in the auction system or outside, or by the fact that we failed to distinguish accurately enough calves of different value as they were sold.

Auction Average Price Comparison:

It is commonplace to explain differences in mart average prices in terms of breed, age and condition of the calves sold. In fact the sale averages which follow reflect more than anything else the relative values of the different types of beast distinguished in Tables 7 and 8 as peculiar to individual auctions.

Table 23 Individual Sale Average Prices

	No.	Main Class	£. s. d.
Bellingham 1st sale	755	Small AA	26.12. 0
Bellingham 2nd sale	919	Small G	25.18. 6
Haltwhistle	191	Small G	23.13. 1
Hexham Auction Mart 1st sale	1139	Small AA	34.19. 9
Hexham Auction Mart 2nd sale	517	Small AA	28.14. 9
Hexham (Tynedale Auction)	432	Small AA	29.13. 4
Morpeth	598	Small AA	32.10. 3
Reston	3417	Large AA	43. 3. 2
Rothbury	32	Small AA	32.19.10
St. Boswells 1st sale	2916	Large AA	45. 0. 3
St. Boswells 2nd sale	2424	Medium AA	39. 6. 9
St. Boswells 3rd sale	525	Medium H	38. 4. 2
St. Boswells 4th sale	299	Small AA	29. 7. 8
Scotsgap 1st sale	1026	Small AA	34. 5.10
Scotsgap 2nd sale	838	Small AA	27. 4. 6
Wooler 1st sale	2112	Small AA	35.10. 1
Wooler 2nd sale	281	Small AA	27. 5. 6
ALL SALES	18421	Small AA	36.18. 4

Since three broad types of calves were identified and every batch sold was graded either "A", "B" or "C" (see page 10), useful comparisons can be made of prices paid for "B" calves, but "A" or "C" grade contrasts would clearly be biased by the proportions of high or low quality animals sold. Despite this the difference between average prices for "A" and "C" calves at separate auctions is usually not marked. It is, however, with the "B" calves, graded between an upper and lower limit, that the following discussion is concerned.

Table 24 shows that for "B" calves also there was no great difference in average prices between individual auctions. Admittedly there is no yardstick for measuring whether the differences are greater or less than if prices had been determined with optimum efficiency. Nor can we usefully speculate far on the relative impact of market imperfection and other factors on price variation. Nevertheless, even the overall range of £7.13.8, between average prices at two auctions where less than 40 "B" calves were sold, could quite possibly be explained, in large measure, by an actual difference in the weight of the two sets of calves. The magnitude of the whole range need not represent more than 1 cwt. difference in weight. On the other hand, there is no evidence against much of the difference being due to characteristics of the individual auctions.

Table 24 Average Prices for Calves Graded "A", "B" and "C" at Separate Auctions

	"A"			"B"			"C"		
	No.	£.	s. d.	No.	£.	s. d.	No.	£.	s. d.
Bellingham 1st sale	13	49.	3. 1	23	42.	2. 2	719	25.	13.10
Bellingham 2nd sale			-	30	43.	0. 8	889	25.	6.11
Haltwhistle			-	4	41.	7. 6	187	23.	5. 6
Hexham Auction Mart 1st sale	110	53.	6. 9	302	41.	3. 2	727	29.	12.11
Hexham Auction Mart 2nd sale	1	56.	0. 0	35	39.	6. 7	481	27.	18. 3
Hexham (Tynedale Auction)	6	54.	1. 8	50	44.	4.10	376	27.	6. 9
Morpeth	20	58.	13. 0	71	43.	8. 3	507	29.	19. 2
Reston	1216	54.	9. 0	1298	41.	3. 9	903	30.	15. 6
St. Boswells 1st sale	1125	53.	8. 3	1530	41.	6. 9	261	30.	7. 2
St. Boswells 2nd sale	515	54.	0. 5	1139	40.	2. 6	770	28.	7. 1
St. Boswells 3rd sale	52	51.	3. 6	235	43.	17.10	238	29.	15. 4
St. Boswells 4th sale	1	63.	0. 0	34	47.	0. 3	264	26.	19. 8
Scotsgap 1st sale	38	54.	19.10	195	42.	1. 6	793	31.	7. 9
Scotsgap 2nd sale	3	56.	6. 8	30	43.	7. 0	805	26.	10. 3
Wooler 1st sale	105	53.	18.10	626	43.	3. 7	1381	30.	12. 4
Wooler 2nd sale			-	12	42.	0.10	269	26.	12. 3

These range extremes, however, are provided by two of nine auctions whose averages comprise so few calves that prices are quite as likely to reflect quality or weight as market operation. For the remaining auctions at which "B" calves were sold in some quantity the range in price was only £3.15.4, and some of this spread can be roughly estimated as due to different proportions of the three main breeds, for which some estimate of the preference can be obtained from Table 22. Indeed, the average prices, corrected for breed, given in Table 25 have 18% less total variance than the actual auction averages.

Table 25 Average Prices Corrected for Breed Differences of "B" Calves at 7 Auctions

	No.	£.	s. d.
Hexham Auction Mart	302	40.	7.10
Reston	1298	40.	19. 1
St. Boswells 1st sale	1530	41.	6. 9
St. Boswells 2nd sale	1139	40.	2. 6
St. Boswells 3rd sale	235	42.	16. 7
Scotsgap 1st sale	195	41.	14.11
Wooler 1st sale	626	42.	15.10

Whether the differences between average prices which remain in Table 25 are due more to variation in quality or weight than to market imperfection can not be resolved. The extreme range might be explained by a possible difference in total average weight amounting to no more than 6%. Again, some change in levels of supply and perhaps demand could well occur even in so short a period as six weeks. There is also the possibility that prices varied between auctions because of transport costs for dispersal or on account of the practice by which "luck money" passes from the seller to the buyer.

There were, however, almost certainly too few buyers from a distance and their haulage costs in relation to the prices paid would have been too small for transport to have had any marked influence on demand

schedules. Payment of "luck money" to the purchaser, though more prevalent and greater in amount in some areas than others, is traditional. Clearly amounts paid should bear some relation to prices received but this is by no means always the case. Only 5 out of 45 farmers did not pay anything, but apart from one farmer who paid £1.1.10 per calf, the amount was small in relation to the price, ranging from 9d. to 9/6d. per calf or from $\frac{1}{4}$d. to $3\frac{3}{4}$d. in the £. The practice may be archaic and by its very existence indicate market imperfection, but it can hardly have much effect on prices; nor, perhaps, can an average payment of 4/3d. per calf be cited as bad business for the seller if it is recognised that receiving "luck" may be considered of some importance by the larger buyers.

Clearly quality of the calves, changes in supply and demand levels or market imperfection must be the only significant causes of the price variation between auctions shown in Table 25. If, however, the whole range between the highest and lowest average prices in the table had to be attributed to institutional characteristics of the auctions, this could hardly be cited as evidence of serious market imperfection. We may reasonably conclude, therefore, that, for "B" calves, very little price variation between auctions need be attributed to reasons other than differences in average value. We can not from the available data draw similar inference with regard to the "A" and "C" animals. Chance alone may account for the apparently similar degree of variation between individual auction averages for these calves as for those graded "B" (Table 24). Indeed, knowledge may easily be more imperfect when it comes to assessing the value of small or forward animals rather than average sorts.

Within Auction Price Comparisons:

Auction average prices, however, can not disclose the extent to which sales of individual batches may be out of line with the general level of prices. No-one would, of course, suppose that every similar batch of calves would conform too closely to the theoretical market perfection concept of "one price". Indeed, opinions are widely held and acted upon by buyers and sellers alike about how a variety of factors may influence price. Thus, it may be considered wise to sell in large or small batches, unfortunate to draw a place in the ballot to sell at certain times of the day, or favourable that a particular auctioneer is on the rostrum when one's calves are up for sale. The following discussion, therefore, deals with price variation within individual auctions and considers how far this can be attributed to institutional characteristics of the market.

At any calf auction, although to purists it may constitute a series of markets in which sellers and buyers are constantly changing as the day progresses, the total quantity and the quality of the day's supply can be reasonably well assessed in advance. Nevertheless, the numbers of potential buyers and consequently their requirements certainly change, as some complete their purchases and depart, as late comers arrive or even as lunch intervenes to remove temporarily some possible buyers from the ringside. With these changes the extent of knowledge among buyers about the general state of the calf trade, or, indeed, about the class of calf on offer may also vary. The number of buyers in any auction with really

Table 26 Distribution of Individual Buyers by Number of Periods in which they Bought and By Periods when Purchases Completed (Total of All Auctions)

Number of Individual Buyers Purchasing in		Separate Periods: One		Two		Three		Four		Five		Six		Seven		Eight	
		F	D	F	D	F	D	F	D	F	D	F	D	F	D	F	D
Number of Individual Buyers with Purchases completed at end of Period	1.	40	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.	49	-	12	1	-	-	-	-	-	-	-	-	-	-	-	-
	3.	38	-	24	-	7	1	-	-	-	-	-	-	-	-	-	-
	4.	51	1	31	1	15	2	4	2	-	-	-	-	-	-	-	-
	5.	59	-	47	1	20	1	7	3	2	-	-	-	-	-	-	-
	6.	55	-	44	1	23	1	14	3	10	2	3	1	-	-	-	-
	7.	63	-	61	1	34	3	20	3	12	2	4	3	4	2	-	-
	8.	71	2	52	2	33	5	23	1	13	7	6	5	3	7	3	9
		426	5	271	7	132	13	68	12	37	11	13	9	7	9	3	9

F = Farmer
D = Dealer

extensive specialized first hand knowledge of the calf trade is apparently small. Out of a total of 797 actual buyers, 129 bought at two auctions, but only 33 purchased on 3 separate days, 12 on 4, 1 on 5, 2 on 6, and one at eight separate auctions.

Anything approaching theoretical perfect knowledge is clearly unattainable when the calves are neither uniform in type nor universally graded. It is difficult, therefore, to imagine that market information more detailed than that which already appears in the local press or is passed by word of mouth could in any way improve market perfection. In these circumstances it is the fact that most buyers and sellers are to a very great extent experts that prevents prices getting out of line.

The actual pattern of buying at 16 auctions is shown in Table 26 which has been built up by dividing the days into 8 separate periods of equal length at each individual sale.

The table shows that there was regular buying by farmers throughout the day but that less than 10% bought in more than three separate periods. Thus different sets of individuals were making purchases at different times. Indeed, only 23 out of a total of 957 farmers bought in more than 5 separate periods. On the other hand nearly a quarter of the dealers bought in 7 or 8 separate periods and so may be assumed to have been active throughout the day.

Individual or composite demand schedules for those operating in these auctions can not of course be known. Because of this and because it seems likely that any pricing imperfections within an auction could be attributed to temporary changes in level of demand rather than supply, one would wish to make some estimate of changes in market tone through the day. In fact, however, none of the popularly accepted indicators such as numbers in attendance, numbers actually buying or speed of selling offer any guide. Table 27 shows that the amount of variation is in most cases small and often randomly distributed. Nor can any correlation be found between these indicators and price.

Table 27 Possible Indicators of Market Tone Through the Day at 13 All-day Sales

Period	1	2	3	4	5	6	7	8
Average Number Attending	150	221	211	232	233	201	163	88
Average Number Buying	23	23	23	24	25	25	25	20
Average Number of Bids per Batch	10.5	11.2	10.7	11.1	11.0	10.3	10.6	9.9
Average Selling Time per Batch(secs)	65	64	58	59	59	55	60	62

This analysis can, therefore, only be in terms of prices paid for a similar commodity. The fact that selling turns are invariably settled by a draw underlines the general belief that it is possible for the seller to be favoured or penalised by having his calves auctioned at certain times of day. It should also mean that during any period of the auction the average quality and type of animal offered is broadly the same. If there is price variation through the day, therefore, it can be mainly attributed to market imperfection. Table 28 shows that some price variation did occur. This was distributed as many familiar with the auction system would expect. The general picture is of low prices early in the day, rising to a peak and falling off at the end.

Table 28 Average Price per Batch (All Calves) at 13 Auctions by Eight Periods

Period	1st	2nd	3rd	4th	5th	6th	7th	8th
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
	35.10. 0	36. 9. 5	35. 1.10	37. 2. 7	37. 0. 8	37. 5. 9	34.12. 8	33.12. 2

Only those auctions starting before 11.30 am and finishing after 3.30 pm have been included in the above comparison. This excludes the smaller occasions. If, however, all auctions are made to yield a comparison by dividing the day into four a similar trend can be observed.

1st Period	2nd Period	3rd Period	4th Period
£. s. d.	£. s. d	£. s. d	£. s. d
33.13. 5	35.17. 0	35.15. 8	33.13. 3

Clearly the most significant consideration is the low price at the beginning and end of the day. For all auctions the first and last half hours gave average prices of £31.6.0 and £31.13.8 respectively, compared with an average price per batch for the whole day of £33.8.2.

It is, however, possible that despite the draw, changes did occur through the day in the class of calf which on average was offered. In particular catalogued lots, drawn to be sold at the beginning or the end of the day, were sometimes not forward and among those offered the proportion withdrawn from the ring was higher at these times than at others. Over all the auctions 7.5% of all the batches offered were unsold but the percentages unsold at the beginning and end of the day were 10% and 11% respectively.

The possibility of quality influence on prices paid at different times of the day suggests the need to make such comparisons for "B" calves only. The fact, however, that the trend of Table 28 is less marked for the "B" calves as shown in Table 29 need not mean that we must attribute a great part of the price difference in the first table to quality variation. If there is imperfection within auctions no small part could be attributed to imperfect knowledge and this is likely to be greater if the whole range of "A", "B" and "C" calves is considered than if only the medium "B" sorts are being assessed. Again, total numbers of batches of "B" calves were far less than of calves of all grades so that the results are likely to be influenced to some extent by varying proportions of bullocks and heifers sold at different times of the day. Separate figures for bullocks and heifers, however, can not be based on a sufficient number of batches to eliminate completely chance effects.

Table 29 Average Price per Batch ("B" Calves) at 10 Auctions by Eight Periods

	Period 1st	2nd	3rd	4th	5th	6th	7th	8th
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
All	41. 1. 5	41. 1. 3	42. 2.11	42.11. 6	40.12.11	40.18. 6	40.15. 0	39.19. 9
Bullocks	44. 0. 5	44. 1. 5	45. 4. 8	45. 5. 3	43.13.11	44. 2. 0	43.15. 1	43. 4. 2
Heifers	37.11. 2	37.16. 7	38.13. 8	38.10. 5	38. 0. 5	37. 8.11	37. 9. 5	35.18. 5

Clearly in Table 29 the trend of prices rising from the start of the auction and then falling at the end is weaker than that in Table 28. It is not surprising, therefore, to discover that at individual auctions this did not

always occur. Sufficient batches of "B" calves to afford a good comparison were only sold at four individual auctions. These show, however, that distributions of price variation can be very different.

Table 30 Average Price per Batch ("B" Calves) at Four Separate Auctions by Eight Periods

Period	Reston	Wooler 1st sale	St. Boswells 1st sale	St. Boswells 2nd sale
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1st	41. 3.11	43.17. 8	40. 0. 0	40. 7. 0
2nd	38. 6. 6	42. 5. 4	43.17. 7	39. 6.10
3rd	44. 2. 8	41.11. 4	41. 7.10	41. 1. 3
4th	41.12. 7	43.16. 8	43.11.10	40. 7.10
5th	39.16. 0	43. 3. 3	38.15. 2	40.18. 5
6th	40.14. 0	41.13. 4	40. 7. 9	40. 7. 6
7th	41. 9. 7	46. 5. 0	40.11. 7	37. 7. 1
8th	40.13. 4	47. 2. 6	37.12.10	41. 2. 6

It seems, therefore, that within auctions price variation, largely attributable to market imperfection, does occur. Over all calves this may amount to as much as £3 to £4 but for "B" animals it may be less. In general such variation follows a regular pattern with prices low at the beginning and end of the day. At the larger auctions (Table 30), although some variation in price for similar calves is still apparent, the incidence of high or low prices is less easily associated with a particular time of day.

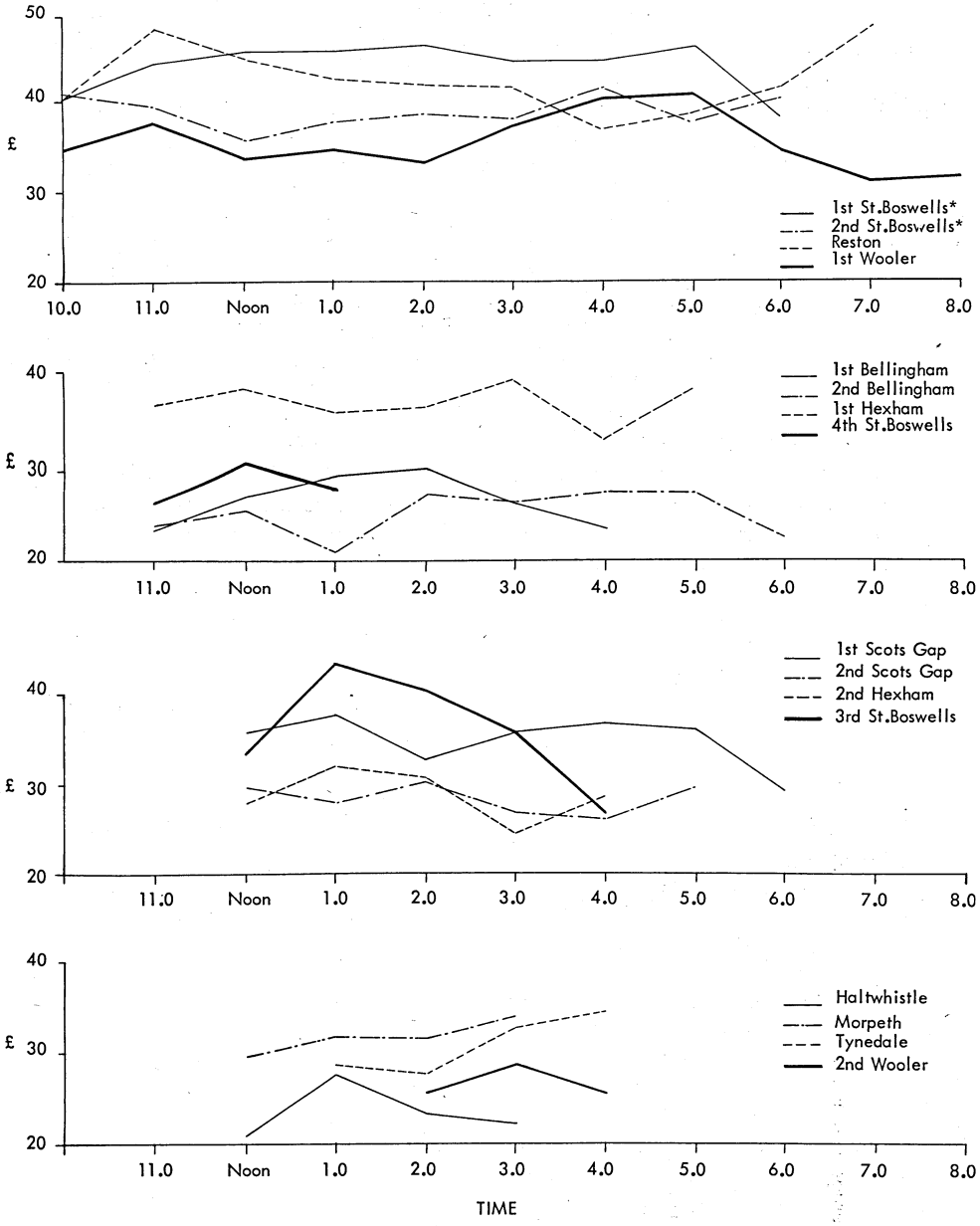
In part the latter effect may be no more than might be expected from a process of price discovery rather than determination. Indeed it could well be that variation in price is more due to varying and changing assessments of quality by the same or different buyers than to temporary alterations in level of demand.

There could, however, be a more pedestrian explanation. Dividing the day into 4 or 8 equal periods allows amalgamation of data from different auctions, but it also masks the real effect of time. Thus the second period at an auction starting at 11.30 am need hardly be characterized by the same price effects as that at another starting at 9.30 am.

Figure 1, therefore, sets out the average prices paid per batch for all cattle at each auction hourly through the day. The figure groups the auctions according to the time of day selling commenced. The tendency for prices to rise after the first hour and to fall off at the end is fairly clearly reflected. Twelve of the auctions showed rises from the start and eight falls at the end of the day. We refrain from comment on the possible variation in the lunch period or in the onset of fatigue between one auction and another, leaving the reader to draw whatever inference his special knowledge of particular auctions may allow. We would only remark that at some auctions the proprietors felt it sufficiently important that dealers should remain in the ring to have sandwiches sent to them.

Apart from imperfections mainly attributable to the operations of buyers there remains the possibility that sellers or individual auctioneers can take action to affect prices. Thus it is commonly believed that there is an optimum number of calves which should be offered in the ring at one

FIGURE 1 AVERAGE PRICE PER BATCH (ALL CALVES) SOLD PER HOUR



* Prizewinners excluded

Table 31 Average Prices for Different Sized Batches Sold Separately at Sixteen Auctions

	No. in Batch 2 - 5		6 - 10		11 - 15		over 15	
	No.	£. s. d.	No.	£. s. d.	No.	£. s. d.	No.	£. s. d.
Bellingham 1st sale	402	26. 5. 0	258	26.14. 5	33	27. 1. 8		-
Bellingham 2nd sale	609	25.19. 8	186	25. 8.10	24	24. 3. 1		-
Haltwhistle	119	23.14. 1	29	23.11. 2		-		-
Hexham Auction Mart 1st sale	557	34.15. 6	465	34. 5. 0	45	33.13. 4		-
Hexham Auction Mart 2nd sale	261	28. 5. 3	183	28.16. 0	14	28. 0. 0		-
Hexham (Tynedale Auction)	233	29.17. 8	153	28.15. 0	22	24. 5. 0		-
Morpeth	171	28. 6. 1	209	31. 0. 3	143	36.14. 2	33	33. 9. 8
Reston	545	40. 8. 8	1049	41.16. 1	1129	41.14.10	623	46. 2. 0
St. Boswells 1st sale	460	42.14. 7	1120	44. 3. 6	689	46.16. 0	568	45. 8. 9
St. Boswells 2nd sale	452	36.10.10	983	38. 2. 8	663	41.17.10	251	39.17.11
St. Boswells 3rd sale	310	37. 2. 0	159	40. 0. 3		-		-
St. Boswells 4th sale	110	26. 1. 1	122	29.17. 2	23	42. 0. 0		-
Scotsgap 1st sale	259	33.18. 1	568	33.12.10	13	36. 4. 0		-
Scotsgap 2nd sale	308	26.16. 0	382	27.10.10	73	23.16. 1	16	35. 0. 0
Wooler 1st sale	400	37. 2. 2	959	34.10. 9	525	35. 0. 4	164	37. 9. 4
Wooler 2nd sale	134	26. 3. 6	98	28. 6.11	13	27. 0. 0		-

time if the best prices are to be obtained. If this were so then one number of calves would in reality have a higher value than a larger or smaller offering.

In fact there is no evidence that any particular offering of calves constitutes a universally optimum quantity. Calves sold singly, of course, usually averaged higher prices than those sold in larger numbers. This was the case at ten of the sixteen auctions but only reflects deliberate policy of many farmers in selling their exceptional animals separately. These single sales are excluded from Table 31 which shows no clear price advantage for selling calves in small or large batches.

It is also commonly held that some individual auctioneers can, by reason of their superior skill, extort somewhat higher prices than others. Table 32 shows that there may be some truth in this view. Certainly, auctioneers' techniques of selling vary considerably, one facet of which is demonstrated by the difference in time taken by individuals to sell a batch at the same auction. It must be remembered, however, that straightforward comparison of the prices averaged by one auctioneer and another are likely to be invalidated by a variety of other circumstances such as the period in the day in which each sells, or the possibility that the most experienced may prefer either to take advantage of a time when prices are likely to be high, or to attempt to compensate with their skill for low price periods.

Table 32 Difference between Highest and Lowest Average Prices and Selling Times for Individual Auctioneers, at Separate Auctions

	Price Difference £. s. d..	Selling Time Difference secs.
St. Boswells 1st day	2. 5.11	0
St. Boswells 2nd day	1. 4. 8	9
St. Boswells 3rd day	4. 2. 6	3
Reston	2. 3. 4	7
Wooler 1st day	5. 3.10	18
Haltwhistle	14. 6	26
Hexham Auction Mart 1st day	2.12. 3	2
Hexham Auction Mart 2nd day	4.13.10	9
Hexham (Tynedale Auction)	3. 8. 7	21
Morpeth	2.12. 6	13
Scotsgap 1st day	1. 4. 4	0
Scotsgap 2nd day	3.11. 6	14
Bellingham 1st day	1. 0.10	3
Bellingham 2nd day	3. 6. 2	15

If we conclude once again from the within mart comparisons that there is evidence of market imperfection leading to variation in price not attributable to value, we again must state that this does not appear to be of a serious character. This is not the place to discuss whether, for

example, a system of contract sale by grading would be preferable to sale by auction. In the light of the foregoing discussion however it would be unrealistic to expect any other system to lead to more accurate price discovery for individual lots than is achieved at auctions. Other systems of marketing store stock might, however, have sufficiently lower costs to compensate less precision in pricing.

CHAPTER 6

ADJUSTING FARM MANAGEMENT PLANS AND PRACTICES TO MARKET CONDITIONS

So far the entire discussion has been about the prices made by calves when they reach the market and the factors influencing these prices, from the condition of the animals to influences within the market itself. Farmers are vitally interested in the price which their stock make but this interest, apart from the prestige value of 'topping the market' is not so much because of its absolute level but because it represents the money out of which their profits must come. Profits, however, depend not only on sale prices but also on production costs, and in this chapter some of these costs will be studied.

Feeding Practices:

Chapter 4 dealt with factors influencing value of the weaned calf. Many of these factors can be controlled by individual producers. This chapter, therefore examines some of the more important of these considerations in the context of costs and returns.

For suckled calves the greatest single item of cost is feed for the cow and calf. Feeding practices vary considerably both from farm to farm and area to area, but two fairly distinct systems can be identified, which are exemplified below.

Table 33 Winter Feed Costs per Cow

Method A	Hay	30 cwts at 6/6d.	£ 9.15. 0
	Bt. Concentrates	2 cwts at 33/-	£ 3. 6. 0
		Total	£13. 1. 0
Method B	Hay	10 cwts at 6/6d.	£ 3. 5. 0
	Straw	10 cwts at 2/-d.	£ 1. 0. 0
	Roots	30 cwts. at 2/6d.	£ 3.15. 0
	Concentrates	5 cwts. at 23/-	£ 5.15. 0
	" (Calf)	1.cwt. at 23/-	£ 1. 3. 0
		Total	£14.18. 0

Most farms use one or other of these feeding practices, in a more or less modified form, though occasionally silage may be substituted for hay or roots. In the hills, particularly in the south and west of the county, Method A is common. On the lower lying farms to the north and east, the ration is more varied with hay, straw, roots and a mixture of home grown and bought concentrates. Perhaps half the lowland calves receive some hand feeding, usually in the few weeks before the sale, but this practice is very rarely adopted with hill calves.

In the Bellingham area, where the hay and cake method was almost universal, the average food cost per calf was £13. 6. 3, compared with a sale price of £26. 4. 6, whereas at Reston, where the second method predominated, the feed cost was £14.11.11 against a sale price of £43. 3. 2. It must be remembered, however, that the large difference in average value is not entirely due to differences in feeding practices since the normal breed and calving dates also vary between the two areas. A more useful comparison, therefore, may be made between grades.

Table 34 Average Feed Costs, per Cow, for All Calves, by Grade G

Grade	All Calves		Galloway X & Highland X		Aberdeen Angus X Hereford X & Others	
	No.	Av. Cost	No.	Av. Cost	No.	Av. Cost
"A"	154	15. 2. 0	9	14. 9.10	145	15. 4.10
"B"	282	13.17. 5	21	12.19.10	261	13.18.10
"C"	811	12.19. 9	234	12. 9. 3	577	13. 3.11
Total	1247	13. 9. 2	264	12.11. 6	983	13.13.11

Comparing costs for calves of different sizes (Table 34) shows higher feed costs for larger calves. The difference, however, is small, especially when related to the difference in returns (Chapter 4). Lower costs were incurred for Galloway and Highland calves because most were kept on the cheaper hay and cake ration.

Since the larger calves are usually the older, feeding costs may be expected to vary with calving date, being highest for the oldest calves.

Table 35 Average Feed Costs, per Cow, for All Calves, by Calving Date

Calving Date	No.	Av. Cost
Nov.	25	16. 3. 6
Dec.	73	15. 0. 1
Jan.	93	12. 6. 4
Feb.	116	13.16. 0
Mar.	186	11.12.10
Apr.	99	11.17. 0
May/July	25	10. 5. 7

However, although the overall trend in the batch is clear, the fall in cost month by month is not regular. Thus it is markedly greater between November and January and lower between January and April. It appears that pushing back calving dates at least to January need not seriously alter feed costs.

Between in and out-wintered herds feed costs varied little (Table 36).

Table 36 Average Feed Costs, per Cow, for In and Out-wintered Herds

Grade	In-wintered No.	In-wintered Av. Cost	Out-wintered No.	Out-wintered Av. Cost
"A"	33	15. 9. 9	82	14.10. 1
"B"	49	13.14. 4	155	14. 1. 4
"C"	192	13.11.10	383	12.14. 2
Total	274	13.16.10	620	13. 5. 9

There will, however, be some additional labour required for in-wintered herds, though often this will not represent much additional payment to workers. Twenty-five per cent of the herds were almost entirely in-wintered and thirty-one per cent had some housing. It is interesting, therefore, to consider whether an increase in total cost of perhaps £2 per calf resulting from in-wintering is justified by an increased return.

Table 37 Average Price per Calf from In and Out-wintered Herds

Grade	In-wintered No.	In-wintered Av.Price	Out-wintered No.	Out-wintered Av.Price
"A"	33	55. 0.11	83	53. 5.10
"B"	49	41. 9. 4	156	41.17. 4
"C"	194	26.17. 6	385	28.18. 2
Total	276	33.16. 8	624	35. 7.10

Table 37 shows very little difference between the two methods with, if anything, the balance in favour of out-lying herds. The comparison, however, may be misleading because small calves often come from farms where out-wintering is not a feasible alternative. Where conditions for out-wintering are suitable, however, there does not seem to be any worthwhile gain from the extra expense of housing the cows, unless it makes earlier calving possible.

Full Costs:

Table 38 shows the average costs and returns for the suckler cows, divided into three broad groups. The herds without Hill Cow subsidy are from lowland areas, usually on farms with a high proportion of arable land, whereas the Galloway herds represent some of the hardest hill areas where much of the land consists of rough grazing. Intermediate between these two lie the areas which are poor enough to be eligible for Hill Cow subsidy but not too poor to carry Aberdeen Angus and Hereford type herds. The returns for calves reflect these land differences very clearly and the importance of subsidies to the hill farmers.

Feeding costs are slightly higher in the lowland group but purchased feeds are not used to the same extent as on the hills. The quality of the grazing is shown clearly in the relative costs for each group. Although

Table 38 Total Costs and Returns per Cow

Costs:	Without Hill Cow Subsidy (25 herds) AAx, Hx	With Hill Cow Subsidy (25 herds) AAx, Hx	With Hill Cow Subsidy (19 herds) Gx, BG
Herd maintenance	2.17. 5	2.16.11	3.12. 0
Bull cost	2. 8. 8	1.10. 4	1. 3.11
Feeding: bought	1.10.11	2.10.11	2.17. 2
home grown	12.13. 9	10.10. 7	9.15. 6
Grazing	6. 6. 5	5.14. 4	4. 3. 2
Labour: manual	4. 0.10	3. 6. 9	4.11. 9
tractor	1. 2. 3	17. 2	13. 7
Miscellaneous	7.10	5. 8	6. 2
Calf replacements	12. 8	10. 9	11. 7
Calf selling expenses	15. 3	9.10	6. 2
Total costs	32.16. 0	28.13. 3	28. 1. 0
Returns:			
Calves	38.17.11	29. 8. 9	26. 9. 9
Calf subsidy	7.18. 5	7.19. 0	8. 0. 7
Hill cow subsidy	7. 5	11. 8. 4	11.11. 4
Total returns	47. 3. 9	48.16. 1	46. 1. 8
Margin	14. 7. 9	20. 2.10	18. 0. 8
Av. No. cows in herd	73	55	36

bull cost is a relatively small proportion of the total, it is interesting to see how clearly it reflects the current high prices paid for Hereford and Angus bulls.

The conclusions reached in this chapter, together with the comments on calving date and breed in Chapter 4, show how far careful planning, even within the limitations of a particular farm, can influence the type of calf produced. Clearly, it costs more to produce a high quality calf than a poor one, but calving date, feeding and breed need to be chosen to suit the particular circumstances. It must, nevertheless, be remembered that all the information on costs and returns has been analysed on the basis of maximum profits from calves sold at the special sales during October and early November. On some farms, however, calves are wintered and sold the following spring or autumn. For these animals early calving, for example, so important an influence on the value of young sucklers, would be far less critical. Age differences become much less apparent as animals get older and the value will then be more influenced by the feeding of the calves through their first winter.

APPENDIX A INDIVIDUAL FARM COSTS AND RETURNS PER CALF FROM PURCHASE AT SUCKLER SALE TO RESALE

Farm	Systems	Breed	Sex	Purchase Price	Sale Price	Gross Margin	Home Grown Feed	Bought Feed	Other Costs	Total Costs	Net Margin
				£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
S 1	Stores, autumn 1961	AAx	Blks	37. 0. 6	60.14.10	23.14. 4	12. 1.11	1. 8. 7	4.14. 3	18. 4. 9	5. 9. 7
S12	" " "	AAx,Hx	Blks & Hfrs	36.19. 2	65. 7. 6	28. 8. 4	12.15. 3	1. 3	5. 1. 4	17.17.10	10.10. 6
S14	" " "	BG	Blks	35. 6. 3	63.18. 3	28.12. 0	7.17.11	3. 3. 7	7.19. 7	19. 1. 1	9.10.11
S21	" " "	BG	Blks & Hfrs	25. 3.11	58. 6.11	33. 3. 0	7.18.10	3. 9.11	6. 9. 7	17.18. 4	15. 4. 8
S32	" " "	AAx,Hx	Blks	36.13.10	65.13.10	29. 0. 0	16.11. 3	1. 4. 4	5.10. 0	23. 5. 7	5.14. 5
S33	" " "	AAx	Blks & Hfrs	44.17. 6	69.17. 0	24.19. 6	6.17. 5	3.11. 8	5.16. 7	16. 5. 8	8.13.10
S37	" " "	BG	Blks	36. 9. 4	60. 7. 6	23.18. 2	12.19. 0	1.19. 9	5. 6. 9	20. 5. 6	3.12. 8
S41	" " "	BG	Blks & Hfrs	30. 6. 2	59.14. 0	29. 7.10	11. 9. 0	2. 6. 9	4. 3. 0	17.18. 9	11. 9. 1
S 3	Grass fattened 1961	AAx,Hx	Blks	51.18. 7	79. 6. 5	27. 7.10	16. 1. 7	1.16. 7	7.11. 4	25. 9. 6	1.18. 4
S 4	" " "	AAx	Mainly Hfrs	42. 1. 6	68.14.10	26.13. 4	11.19. 6	16. 2	5. 9. 8	18. 5. 4	8. 8. 0
S 6	" " "	AAx,Hx	Blks	32. 5. 0	68. 9.11	36. 4.11	14.13. 1	-	6. 7. 2	21. 0. 3	15. 4. 8
S10	" " "	AAx,Hx	Hfrs	33.13. 3	68. 7. 7	34.14. 4	9. 2. 5	-	9. 6. 9	18. 9. 2	16. 5. 2
S15	" " "	AAx	Blks & Hfrs	35.15. 1	65. 0.10	29. 5. 9	15. 8.10	1. 2. 3	4. 5. 1	20.16. 2	8. 9. 7
S16	" " "	AAx	Blks	40. 7. 3	72.11. 3	32. 4. 0	16. 1. 2	3. 0. 9	3. 4. 1	22. 6. 0	9.18. 0
S18	" " "	AAx,Hx	Hfrs	40. 0. 0	66. 9.11	26. 9.11	9.19.10	1. 3	4.14. 1	14.15. 2	11.14. 9
S20	" " "	AAx,Hx	Blks & Hfrs	28.11. 9	67. 0. 7	38. 8.10	10.13. 1	4. 5. 1	7. 8. 2	22. 6. 4	16. 2. 6
S26	" " "	AAx,Hx	Blks	37. 8. 7	70.13.11	33. 5. 4	9. 9. 6	11.10	6. 9. 4	16.10. 8	16.14. 8
S27	" " "	AAx	Blks	53. 3.11	77.15. 3	24.11. 4	15.19. 8	-	3. 5. 6	19. 5. 2	5. 6. 2
S28	" " "	AAx	Hfrs	32.10. 0	61. 4. 1	28.14. 1	12. 3. 9	10. 0	4. 6. 0	16.19. 9	11.14. 4
S31	" " "	AAx,Shx,Frx	Blks & Hfrs	26.18. 4	62. 5. 0	35. 6. 8	15.11.11	-	5.13.11	21. 5.10	14. 0.10
S36	" " "	AAx,Frx	Blks & Hfrs	25.16. 4	63.15. 5	37.19. 1	16.19. 3	4.15.11	8. 2. 1	29.17. 3	8. 1.10
S44	" " "	AAx,Hx	Blks & Hfrs	43.17. 5	71. 9. 3	27.11.10	12.15. 1	1. 9. 3	4. 0. 5	18. 4. 9	9. 7. 1
S 1	Stores, spring 1961	AAx	Blks & Hfrs	36.17. 4	61.12.11	24.15. 7	13. 9. 6	2. 8. 9	2.13. 8	18.11.11	6. 3. 8
S 7	" " "	AAx	Blks & Hfrs	32. 2. 7	51.16. 1	19.13. 6	9.17. 4	1. 7. 9	1.16.10	13. 1.11	6.11. 7
S11	Fat " "	AAx	Hfrs	42.13. 0	70. 4. 9	27.11. 9	18.14. 6	2.17. 5	2.11. 6	24. 3. 5	3. 8. 4
S34	Fat & Store " "	AAx,Hx	Blks & Hfrs	34. 3.10	59. 8. 0	25. 4. 2	10.11. 0	1. 2. 1	1.13. 4	13. 6. 5	11.17. 9
S39	Fat & Store " "	AAx	Blks	33.14. 5	60. 1. 3	26. 6.10	14. 4. 0	1.13. 3	3.15. 4	19.12. 7	6.14. 3
S44	Fat " "	AAx,Hx	Blks & Hfrs	48.12. 2	64. 2. 6	15.10. 4	8. 9. 4	19. 5	1.17. 3	11. 6. 0	4. 4. 4
S19	Fat, mainly winter 1961-62	Hx,AAx	Blks	41.12. 4	83.13. 1	42. 0. 9	15. 2.10	5.17. 9	5. 2.11	26. 3. 6	15.17. 3
S30	Store autumn 1961, Fat spring 1962	AAx,Hx,Gx	Blks & Hfrs	24.19. 4	69. 9. 2	44. 9.10	21. 8. 8	3.12. 1	8.16. 3	33.17. 0	10.12.10
S40	Store autumn 1962	BG	Blks	35.15. 0	74. 6. 0	38.11. 0	6.12. 7	2.10.10	15. 6. 1	24. 9. 6	14. 1. 6

APPENDIX B NOTES ON ACCOUNTING METHODS USED

Home-grown Foods were charged at standard costs per cwt. based on average costs of production derived from other investigations.

Oats	13/- per cwt.	Kale	2/6 per cwt.
Mixed Corn	15/- per cwt.	Turnips	2/6 per cwt.
Barley	15/- per cwt.	Straw	2/- per cwt.
Silage	2/6 per cwt.	Hay	6/6 per cwt.
Mangolds	3/- per cwt.		

Purchased Foods were charged at actual costs delivered to the farm.

No adjustment has been made for the residual manurial value of foods.

Manual Labour was charged at the rates paid, including allowances for National Health Insurance contributions, perquisites, paid holidays, etc. An equivalent rate was charged for the unpaid labour of the farmer and his family.

Tractor Work was charged at a standard rate of 5/- per hour,
Horse Work at 1/6 per hour.

Grazing Units In apportioning total grazing costs, the following scale of grazing equivalents was used:-

Adult cattle and horses	-	1 unit per head
Cattle 1 - 2 years old	-	$\frac{3}{4}$ unit per head
Cattle under 1 year old	-	$\frac{1}{4}$ unit per head
Ewes and Rams	-	$\frac{1}{4}$ unit per head
Lambs under 6 mths. old	-	$\frac{1}{10}$ unit per head
Lambs over 6 mths. old	-	$\frac{1}{4}$ unit per head

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