University of Reading
Department of
Agricultural Economics & Management

A NATIONAL BEEF SURVEY

J.A.L DENCH
AND
R.L VAUGHAN

Economic Report No. 78

Agricultural Enterprise Studies in England & Wales

1981

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Professor J. P. McInerney

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A NATIONAL BEEF SURVEY

A Random Sample Economic Study of lowland beef production in 1978-9 together with some results from a Structure Survey of beef production carried out in 1976.

J. A. L. Dench

and

R. L. Vaughan

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F O R E W O R D

AGRICULTURAL ENTERPRISE STUDIES IN ENGLAND AND WALES

University departments of Agricultural Economics in England and Wales have for many years undertaken economic studies of crop and livestock enterprises, receiving financial and technical support from the Ministry of Agriculture, Fisheries and Food.

The departments in different regions of the country conduct joint studies of those enterprises in which they have a particular interest. This community of interest is recognised by issuing enterprise studies reports prepared and published by individual departments in a common series entitled 'Agricultural Enterprise Studies in England and Wales'.

Titles of recent publications in this series and the addresses of the University departments are given at the end of the report.

PREFACE AND ACKNOWLEDGEMENTS

The results presented in this report summarize data collected in the first economic survey of beef production to be attempted on a national random sample basis. They therefore do not attempt to describe any particular system or systems of beef production but rather, the economic structure of the very mixed collection of beef enterprises which constitute the majority of the beef-producing units in England and Wales.

The design and execution of the Survey was a joint exercise to which eight University Departments and one College Department of Agricultural Economics* conducting enterprise surveys in England and Wales all contributed. Co-ordination of the Survey has been the responsibility of the Department of Agricultural Economics and Management at the University of Reading.

Grateful thanks are due to all the co-operating farmers who took so much trouble to provide the basic information and who awaited the results so patiently. Also to colleagues at all nine centres who helped in the design of the study and who subsequently collected the data and forwarded it to us. The unavoidable delay in publishing this report has been due to the innovatory nature of the study.

The report has been typed by Mrs. D. R. Turner.

* See page 71.

INTRODUCTORY NOTES AND COMMENT

A primary objective of the study reported here was to assess the feasability of conducting surveys of beef production on a national random sample basis. Additionally it was hoped that the survey would gather useful information on the economics of beef production.

Lowland beef production in England and Wales exhibits wide variety in systems of production, and in combinations of systems on individual farms. Further, the production cycle from calf to finished animal is frequently broken up into several intermediate stages which take place on different farms. For these reasons the greater part of beef production in this country is not readily classified as belonging to any particular system. Most economic studies have, however, been confined to the examination of certain well defined systems so that their results cannot readily be used to indicate the economics of national beef production. This study represents an attempt to remedy that situation.

The Sample

The total sample consisted of 200 lowland farms, having ten or more male cattle under two years old. The regional distribution and stratification of this sample, shown in Table 2, was based on an analysis of the 1977 June census; stratification into size groups being on the number of male cattle under two years old on each farm. Table 1 shows the total number of holdings from which the sample was drawn and the sampling fractions used. The latter were calculated so that the number of farms selected in each size group was proportional to the total number of cattle in that group.

Table 1.

Male cattle under two years old on holdings with ten or more. England and Wales, June 1977

Number of cattle per farm	10-29	30-99	100 & over	Total
Number of holdings (a)	25,281	16,053	2,614	43,948
Number of cattle	439,974	808,077	430,799	1,678,850
Percentage of holdings	57.5	36.5	6.0	100
Percentage of cattle	26.2	48.1	25.7	100
Number of farms in the sample (b)	52	96	52	200
Sampling fraction ($^{b}/_{a}$)	$^{1}/_{486}$	$^{1}/_{167}$	$^{1}/_{50}$	

Table 2.

Regional distribution of the original sample

Size group / University province	Number of male cattle under 2 years June 1977			
	10-29	30-99	100 and over	Total
	Number of farms			
Aberystwyth	7	8	3	18
Askham Bryan	6	10	7	23
Cambridge	3	7	7	17
Exeter	10	15	6	31
Manchester	4	10	3	17
Newcastle	5	10	5	20
Nottingham	5	11	6	22
Reading	9	20	12	41
Wye College	3	5	3	11
Total	52	96	52	200

The final sample, for which completed records were obtained, consisted of 193 farms and tables showing its regional size distribution will be found on pages 10, 30 and 51. It will be seen from the size distribution of this final sample that it included a rather greater proportion of small enterprises than the 1977 national distribution.

Duration and scope of the Survey

The survey covered a twelve month period from April 1978 to March 1979, the exact starting date on individual farms being varied where necessary to coincide with the end of the winter feeding period. Physical and financial details were collected for the whole beef enterprise on each farm.

Presentation of the Results

The results from the 193 farms have been grouped for analysis on four different bases, and separate sections of the report are devoted to each basis of grouping:

1. On the basis of beef cattle intake:

   Section I with a pink title page.

2. On the basis of beef cattle output (disposals):

   Section II with a blue title page.

3. On the basis of standard man-day type of farming class of each farm:

   Section III with a green title page.

4. On the basis of size of beef unit in terms of the average number of livestock-units during 1978-79:

   Section IV with a gold title page.

Each section is in effect a separate report which presents all the survey data from a particular and different viewpoint. Sections I, II and III are very similar in layout whilst Section IV is rather shorter. All the tables have been compiled from weighted averages i.e. larger enterprises carry proportionately greater weight than smaller ones. A brief interim report showing unweighted averages has already been given limited circulation and is available on request from the Department of Agricultural Economics and Management, University of Reading.

Comment

The period covered by this survey, April 1978 to April 1979, was characterised by the absence of any significant fluctuation in the market prices for beef cattle. There is thus little or no element of livestock appreciation or depreciation attributable to price fluctuation in these results. Further, while the period was not a prosperous one for beef producers this was not due to any marked extent to seasonal or weather conditions.

The average net margin for the 193 farms was poor, being little better than a break-even figure but the better (premium) producers, as measured by their margin per £100 of output, in all groups achieved quite satisfactory average margins. It is also interesting to note that the results presented in Section IV show a remarkably consistent trend of improvement in average net margin with increasing size of beef unit. Other groups which did rather better than the sample as a whole were those with a substantial involvement in calf rearing or store selling.

The tables which follow are presented without commentary but it is hoped that they will never-the-less be understandable and that from them farmers, advisers and statisticians will be able to assess the contribution which this type of survey can make towards meeting their particular needs.

IMPORTANT NOTE on conventions used in the tables in this report.

1. All figures (other than the number of farms) have been rounded and consequently may not add to the totals shown.

2. A - may indicate zero or less than 0.5 of the lowest digit, i.e. 0.05 if the table shows figures to one decimal place, or 0.5 if only whole numbers are given.

3. The number of farms in the groups shown in a particular table may not add to the 'whole sample' number because averages for groups of less than four farms have been omitted.

SECTION I

Survey results for beef enterprises grouped on the basis of their beef cattle intake.

CLASSIFICATION ON THE BASIS OF BEEF CATTLE INTAKE

Type of Intake	Group
Over 50% as calves 3 months old or less, of which 50% or more were:	
Home bred single suckled calves	1
Home bred dairy calves	2
Home bred dairy and single suckled calves	3
Purchased calves	4
Calves of mixed origins	5
50% or more as stores	
Over 3 and up to 12 months old	6
Over 12 and up to 18 months old	7
Over 18 and up to 24 " "	8
Over 24 months old	9
Mixed ages, no age groups accounting for 50% of cattle intake	10
Nil intake during 1978/79	11

Note More specialised types can be obtained by using a factor greater than 50%, but at the expense of increasing the proportion of samples in the "mixed" groups. See Tables

DISTRIBUTION OF INTAKE GROUPS BY UNIVERSITY CENTRE

UNIVERSITY OR COLLEGE CENTRE (2) / INTAKE GROUP (1)	1	2	4	6	7	8	9	10	11	TOTAL
	Number of farms									
Aberystwyth	1	4	4	-	5	-	-	1	1	16
Askham Bryan College	4	1	7	5	2	1	1	2	1	24
Cambridge	4	-	5	1	2	-	-	2	1	15
Exeter	6	10	13	4	4	-	-	2	-	39
Manchester	1	11	2	1	-	-	-	-	-	15
Newcastle	3	6	5	3	4	-	-	1	-	22
Nottingham	3	3	3	4	1	-	-	2	-	16
Reading	6	5	11	-	9	1	-	1	2	35
Wye College	4	1	2	1	2	-	-	-	1	11
Total	32	41	52	19	29	2	1	11	6	193

(1) See page 9

(2) For counties covered by each University/College see Appendix II

AVERAGE CROPPING (Ha.) PER FARM: INTAKE GROUPS

Group	1	2	4	6	7,8 & 9	10/11	Whole Sample
Number of Farms	32	41	52	19	32	17	193
			Hectares				
Cropping							
Cereals	134.5	24.4	29.7	46.8	50.1	45.6	52.4
Sugar beet	4.0	0.3	1.6	1.2	2.6	1.9	1.8
Potatoes	1.3	0.7	1.6	3.5	1.9	2.9	1.7
Horticulture	1.1	-	1.6	0.4	4.0	-	1.3
Herbage Seed	-	0.3	-	-	-	-	0.1
Other cash crops	8.6	0.1	1.5	0.3	2.4	1.6	2.4
Fodder crops	5.4	2.0	1.1	2.2	1.5	1.5	2.2
Permanent pasture	51.9	46.8	25.2	23.1	37.1	34.1	36.8
Leys	41.3	38.4	15.8	27.9	25.0	14.0	27.4
Rough grazing	9.3	3.6	2.6	5.2	1.7	0.2	3.8
Other	3.8	1.3	2.7	1.6	3.5	1.4	2.5
Total	261.1	118.0	83.4	112.1	129.8	103.2	132.4

AVERAGE STOCKING PER FARM: INTAKE GROUPS

Group	1	2	4	6	7,8 & 9	10/11	Whole Sample
Number of Farms	32	41	52	19	32	17	193
			Head of stock				
Type of stock							
Dairy cows	0.1	77.6	2.5	-	9.7	5.6	19.3
Beef cows	76.7	1.1	7.0	10.1	5.7	5.5	17.3
Other cattle	110.2	142.8	104.9	101.7	128.7	107.0	117.6
Sheep: ewes	172.6	44.8	61.7	77.5	107.3	43.6	84.0
other sheep over 6 months	7.3	32.1	18.8	22.3	44.5	26.2	25.0
Pigs: sows	2.0	6.9	8.0	9.7	3.6	1.5	5.6
other pigs	18.4	55.6	36.9	59.6	26.9	6.5	35.7
Poultry	1.6	2.2	1029.7	-	-	211.8	296.8
Horses Etc.	0.2	0.1	1.1	0.2	0.1	0.7	0.5

AVERAGE OUTPUT, COSTS, MARGIN AND CAPITAL PER FARM: INTAKE GROUPS

Group	1	2	4	6	7,8 & 9	10/11	Whole Sample
Number of Farms	32	41	52	19	32	17	193
	£	£	£	£	£	£	£
Output	21498	13110	16217	13266	13474	14483	15534
Costs							
Concentrates	3548	4164	5706	3804	3811	5784	4526
Purchased fodder	175	59	157	233	244	154	161
Fertilizer	2545	981	985	1410	1105	915	1298
Other variable costs of fodder:							
Sprays	38	29	30	18	10	15	25
Seed	299	149	127	193	174	85	171
Contract	200	11	122	75	80	46	93
Bought grass	83	140	90	84	439	10	150
Miscellaneous	178	65	107	111	108	76	108
Total	798	393	476	481	811	233	547
Other variable costs of beef:							
Transport	144	108	118	200	308	163	163
Vet. and medicines	459	249	388	278	211	288	321
Miscellaneous	335	120	280	324	305	170	254
Total	938	477	786	802	823	620	738
Labour for beef	2460	1535	2286	2146	1646	2254	2033
Tractors, motor vehicles and equipment used for beef	1394	632	1038	782	798	744	920
Share of labour, tractor & mach. costs for forage prodn. & field maintenance	3071	1404	1873	2189	1554	1182	1889
Rental value of forage area	3479	1058	1472	2163	1773	1120	1804
General farm overheads	2638	1104	1331	1578	1388	1241	1525
Total costs	21044	11808	16110	15588	13953	14247	15441
Net Margin (over above costs)	453	1303	107	-2322	-479	237	94
Capital							
Cattle in opening valuation	39046	15303	21247	28250	22303	20737	23755
Beef equipment	1520	855	1507	1119	1310	669	1226
Share of grass & forage equipment	3049	1753	2007	1845	1869	1243	2019
Total	43615	17911	24761	31214	25482	22649	27000
Total labour input	3632	1964	2944	2952	2153	2679	2696
Total tractor input	1734	675	1067	1014	636	770	992
Total machinery input	1351	743	1016	942	881	543	942
Subsidies (excl. F.S. prems.) included in output	131	68	177	141	48	255	128
Physical inputs and production							
Labour hours to beef Hrs.	1537	960	1429	1342	1029	1409	1270
Forage area used for beef Ha.	83	25	36	46	41	32	43
- of which grass area = Ha.	80	23	35	45	39	32	41
Livestock units of beef - average during the year	105	46	58	63	59	54	63
Liveweight production in the year Kg.	23349	17644	20774	18149	17680	19426	19646

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS: INTAKE GROUPS

Group	1	2	4	6	7,8 & 9	10/11	Whole sample
Number of farms	32	41	52	19	32	17	193
Average forage area for beef ha.	82.7	25.4	36.3	45.7	40.9	32.2	43.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)							
Costs	£	£	£	£	£	£	£
Concentrates	16.5	31.8	35.2	28.7	28.3	39.9	29.1
Purchased Fodder	0.8	0.4	1.0	1.8	1.8	1.1	1.0
Fertilizer	11.8	7.5	6.1	10.6	8.2	6.3	8.4
Other variable costs of forage	3.7	3.0	2.9	3.6	6.0	1.6	3.5
Other variable costs for beef	4.4	3.6	4.8	6.0	6.1	4.3	4.8
Total variable costs	37.2	46.3	50.0	50.7	50.4	53.2	46.8
Gross Margin	62.7	53.7	50.0	49.3	49.6	46.8	53.2
Labour for beef	11.4	11.7	14.1	16.2	12.2	15.6	13.1
Tr. Mv. & Equip. used for beef	6.5	4.8	6.4	5.9	5.9	5.1	5.9
Share of labour & machinery for forage & field maintenance	14.3	10.7	11.6	16.5	11.5	8.2	12.2
Rental value of forage area	16.2	8.1	9.1	16.3	13.2	7.7	11.6
General farm overheads	12.3	8.4	8.2	11.9	10.3	8.6	9.8
Total fixed costs	60.7	43.7	49.3	66.8	53.1	45.2	52.6
Total costs	97.9	90.0	99.3	117.5	103.6	98.4	99.4
Net Margin (over the above costs)	2.1	10.0	0.7	-17.5	-3.6	1.6	0.6
Capital	202.9	136.6	152.7	235.3	189.1	156.4	173.8
Forage area ha.	0.38	0.19	0.22	0.34	0.30	0.22	0.28
Labour hours hrs.	7.2	7.3	8.8	10.1	7.6	9.7	8.2
Livestock units of beef	0.49	0.35	0.36	0.48	0.43	0.37	0.41
Liveweight production kg.	109	135	128	137	131	134	126
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)							
	£	£	£	£	£	£	£
Output	259.9	516.6	447.3	290.2	329.6	449.1	361.3
Costs	254.4	465.3	444.4	340.9	341.3	441.8	359.1
Net Margin	5.5	51.3	3.0	-50.8	-11.7	7.3	2.2
Gross Margin	163.0	277.2	223.6	143.2	163.4	210.1	192.2
Capital	527.3	705.8	683.0	682.7	623.3	702.3	628.0
Labour hours hrs.	19	38	39	29	25	44	30
Liveweight production kg.	282	695	573	397	432	602	457
Grassland area to beef ha.	0.96	0.89	0.97	0.98	0.95	0.99	0.96
Nitrogen use on grass kg/ha.	87	82	77	84	75	83	82
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)							
	£	£	£	£	£	£	£
Output	49.3	73.2	65.5	42.5	52.9	63.9	57.5
Costs	48.3	65.9	65.1	49.9	54.8	62.9	57.2
Net Margin	1.0	7.3	0.4	-7.4	-1.9	1.0	0.3
Gross Margin	30.9	39.3	32.7	21.0	26.2	29.9	30.6
Capital (composition)							
Cattle	89.5	85.4	85.8	90.5	87.5	91.6	88.0
Beef Equipment	3.5	4.8	6.1	3.6	5.1	3.0	4.5
Grass & Forage Equipment	7.0	9.8	8.1	5.9	7.3	5.5	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)							
	£	£	£	£	£	£	£
Output	205.3	287.9	279.0	209.2	230.4	266.8	245.0
Costs	201.0	259.3	277.2	245.8	238.6	262.4	243.5
Net Margin	4.3	28.6	1.8	-36.6	-8.2	4.4	1.5
Gross Margin	128.7	154.5	139.5	103.2	114.2	124.8	130.3
Capital	416.5	393.3	426.1	492.2	435.8	417.2	425.8
Forage area to beef ha.	0.79	0.56	0.62	0.72	0.70	0.59	0.68
Grassland area to beef ha.	0.76	0.50	0.61	0.70	0.66	0.59	0.65
Labour hours hrs.	15	21	25	21	18	26	20
Liveweight production kg.	223	387	357	286	302	358	310

ANALYSIS OF CONCENTRATE FEEDING COSTS:

INTAKE GROUPS

Group	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	32	34	12	88	55	-	26	-	11	8	62	-	18	1	10	9
2	41	92	27	73	33	13	52	1	1	-	37	8	48	1	2	5
4	52	98	18	82	43	6	47	-	3	2	61	4	29	-	2	4
6	19	60	9	91	44	2	34	-	20	-	85	-	8	-	6	1
7,8 & 9	32	65	5	95	60	4	17	1	8	11	33	-	45	-	2	21
10 & 11	17	107	31	69	49	2	7	17	20	5	65	1	7	15	8	4
Whole Sample	193	71	18	82	43	6	37	4	7	3	55	3	29	2	4	7

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

INTAKE GROUPS

Group	1	2	4	6	7,8 & 9	10/11	Whole Sample
Number of Farms	32	41	52	19	32	17	193
Average forage area for beef Ha.	82.7	25.4	36.3	45.7	40.9	32.2	43.0
			Number of head per farm				
Intake during year	70	48	66	72	113	82	73
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	82	2	8	6	3	6	17
Dairy calves retained for beef	-	88	1	-	-	-	13
Purchased calves 0 - 3 months	10	6	86	5	1	18	26
" " 3 - 12 "	3	-	5	78	9	26	14
Purchased stores 12 - 18 "	3	3	-	9	78	29	25
" " 18 - 24 "	2	-	-	2	7	20	4
" " over 24 "	0	1	-	-	2	1	1
	100	100	100	100	100	100	100
			Number of head per farm				
Output during year	67	43	60	81	115	117	74
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	19	16	25	6	7	16	15
Fat 18 - 24 "	24	32	30	42	53	46	39
Fat over 24 "	8	14	10	29	23	6	15
Stores up to 12 months	23	13	4	-	-	22	9
" 12 - 18 "	19	9	13	14	7	5	11
" 18 - 24 "	6	12	13	8	9	4	9
over 24 "	1	4	5	1	1	1	2
	100	100	100	100	100	100	100

ANALYSIS OF CONCENTRATE FEEDING COSTS:

PREMIUM FARMS (BEST 25%) IN EACH INTAKE GROUP

Group	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk subs	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk subs	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	8	35	9	91	45	-	44	-	10	1	66	-	16	1	15	3
2	10	63	22	78	34	17	47	1	-	-	44	7	39	3	-	6
4	12	82	18	82	54	9	35	-	2	-	75	5	15	-	1	3
6	5	76	9	91	24	3	54	-	19	-	89	-	5	-	4	2
7	8	54	6	94	77	12	3	-	3	5	55	1	40	-	3	2
10/11	4	45	14	86	51	10	-	13	25	-	84	4	7	-	5	-
Whole Sample	48	64	21	79	54	7	26	1	9	3	66	4	19	1	6	4

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS: PREMIUM FARMS (BEST 25%) IN EACH INTAKE GROUP

Group		1	2	4	6	7	10/11	Whole Sample
Number of Farms		8	10	12	5	8	4	48
Average forage area for beef	ha.	95.6	28.8	35.6	59.3	44.2	28.1	45.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)								
Costs		£	£	£	£	£	£	£
Concentrates		15.7	21.1	25.4	25.9	21.1	13.0	22.9
Purchased Fodder		1.1	0.0	1.1	3.1	3.5	0.2	1.2
Fertilizer		8.1	5.9	4.2	11.6	6.8	6.1	6.4
Other variable costs of forage		4.9	1.7	1.5	2.6	3.9	1.6	2.5
Other variable costs for beef		3.5	2.8	3.9	4.0	4.8	3.0	3.5
Total variable costs		33.2	31.5	36.2	47.2	40.0	23.9	36.3
Gross Margin		66.6	68.5	63.8	52.8	60.0	76.1	63.6
Labour for beef		9.5	7.0	9.5	8.5	10.7	8.8	9.0
Tr. Mv. & Equipment used for beef		5.2	2.4	3.3	4.2	5.6	3.9	3.8
Share of lab. & machinery for forage & field maintenance		9.8	9.5	7.9	9.0	9.4	9.9	8.5
Rental value of forage area		11.5	6.2	7.0	9.3	9.9	8.1	8.3
General farm overheads		8.8	7.0	5.9	7.4	8.6	6.8	7.2
Total fixed costs		44.9	32.2	33.6	38.5	44.3	37.6	36.7
Total costs		78.1	63.7	69.8	85.6	84.3	61.4	73.0
Net Margin (over the above costs)		21.9	36.3	30.2	14.4	15.7	38.6	27.0
Capital		171.6	125.7	136.1	147.8	189.4	116.8	146.3
Forage area	ha.	0.27	0.16	0.17	0.23	0.24	0.20	0.20
Labour hours	hrs.	5.9	4.4	5.9	5.3	6.7	5.5	5.6
Livestock units of beef		0.45	0.33	0.31	0.34	0.39	0.29	0.36
Liveweight production	kg.	98	143	111	125	98	122	119
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)								
		£	£	£	£	£	£	£
Output		372.7	628.4	596.1	440.8	411.1	488.8	494.7
Costs		291.3	400.3	415.9	377.5	346.5	300.3	361.3
Net Margin		81.5	228.1	180.3	63.3	64.5	188.5	133.4
Gross Margin		248.2	430.6	380.3	232.8	246.5	372.0	314.8
Capital		639.6	789.9	811.3	651.4	778.7	570.8	724.0
Labour hours	hrs.	22	28	35	23	27	27	28
Liveweight production	kg.	365	898	661	553	403	598	591
Grassland area to beef	ha.	0.95	0.91	0.98	0.96	0.97	1.00	0.95
Nitrogen use on grass	kg/ha.	86	99	69	132	80	125	86
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)								
		£	£	£	£	£	£	£
Output		58.3	79.6	73.5	67.7	52.8	85.6	68.3
Costs		45.5	50.7	51.3	58.0	44.5	52.6	49.9
Net Margin		12.7	28.9	22.2	9.7	8.3	33.0	18.4
Gross Margin		38.8	54.5	46.9	35.7	31.6	65.2	43.5
Capital (composition)								
Cattle		93.3	88.4	90.3	90.1	90.4	88.4	91.7
Beef Equipment		2.2	3.0	2.2	4.3	4.4	3.9	2.5
Grass and Forage Equipment		4.5	8.6	7.4	5.6	5.2	7.7	5.8
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)								
		£	£	£	£	£	£	£
Output		220.6	300.7	321.9	293.3	256.6	346.1	280.9
Costs		172.4	191.6	224.6	251.2	216.3	212.7	205.2
Net Margin		48.2	109.2	97.3	42.1	40.3	133.5	75.8
Gross Margin		146.9	206.1	205.4	154.9	153.9	263.4	178.8
Capital		378.5	378.0	438.1	433.3	486.1	404.2	411.2
Forage area to beef	ha.	0.59	0.48	0.54	0.67	0.62	0.71	0.57
Grassland area to beef	ha.	0.56	0.44	0.53	0.64	0.60	0.71	0.54
Labour hours	hrs.	13	13	19	16	17	19	16
Liveweight production	kg.	216	430	357	368	251	423	336

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

PREMIUM FARMS (BEST 25%) IN EACH INTAKE GROUP

Group	1	2	4	6	7	10/11	Whole Sample
Number of farms	8	10	12	5	8	4	48
Average forage area for beef Ha.	95.6	28.8	35.6	59.3	44.2	28.1	45.0
			Number of head per farm				
Intake during year	104	59	68	111	157	113	81
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	87	1	5	6	-	2	26
Dairy calves retained for beef	-	82	3	-	2	-	19
Purchased calves 0 - 3 months	6	11	91	6	1	9	26
" " 3 - 12 "	6	1	2	69	16	23	12
Purchased stores 12 - 18 "	-	5	-	15	68	31	9
" " 18 - 24 "	1	-	-	5	9	30	6
" " over 24 "	-	1	-	-	5	5	2
	100	100	100	100	100	100	100
			Number of head per farm				
Output during year	90	51	72	130	164	118	82
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	29	26	19	12	9	6	19
Fat 18 - 24 "	25	13	41	16	62	59	32
Fat over 24 "	-	18	9	43	20	16	12
Stores up to 12 months	23	9	1	-	-	1	11
" 12 - 18 "	20	10	5	29	1	5	12
" 18 - 24 "	-	25	14	-	8	9	10
" over 24 "	3	-	12	-	-	5	4
	100	100	100	100	100	100	100

VARIABILITY OF MARGINS PER £100 OUTPUT IN EACH INTAKE GROUP

Intake Group	Group				Premium Farms (Best 25% of Margins)		
		Range of Margins				Range of Margins	
	Number of farms	Minimum	Maximum	Standard Error	Number of farms	Minimum	Maximum
1	32	-92.2	28.5	4.78	8	17.0	28.5
2	41	-126.9	51.7	5.37	10	21.6	51.7
4	52	-134.7	52.2	4.96	12	13.4	52.2
6	19	-249.8	24.8	15.94	5	-1.2	24.8
7	32	-141.1	35.4	5.69	8	4.8	35.4
10 & 11	17	-120.1	65.9	13.09	4	22.3	65.9
Whole Sample	193	-249.8	65.9	3.04	48	13.7	65.9

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS:

"PREDOMINANT" INTAKE FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle intake in one type-class)

Group		1	2	4	5	7
Number of Farms		23	33	35	19	21
Average forage area for beef	Ha.	81.1	22.7	36.3	49.1	33.6
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)						
Costs		£	£	£	£	£
Concentrates		14.5	32.1	37.4	27.1	26.6
Purchased Fodder		0.7	0.1	0.9	0.6	2.0
Fertilizer		12.4	6.3	6.2	8.1	8.7
Other variable costs of forage		3.8	2.8	3.0	3.7	5.4
Other variable costs for beef		4.6	3.7	4.8	4.4	6.7
Total variable costs		36.0	45.0	52.2	43.9	49.4
Gross Margin		64.0	55.0	47.8	56.0	50.6
Labour for beef		11.6	11.8	12.2	15.8	14.0
Tr. Mv. & Equipment used for beef		6.7	5.1	5.2	4.4	7.1
Share of labour & machinery for forage and field maintenance		14.0	11.1	11.1	12.0	12.9
Rental value of forage area		16.5	7.8	8.2	10.5	13.1
General farm overheads		12.5	8.1	7.3	11.1	11.0
Total fixed costs		61.3	43.9	44.0	53.9	58.1
Total costs		97.3	88.9	96.2	97.7	107.5
Net Margin (over the above costs)		2.7	11.1	3.8	2.3	-7.5
Capital		210.3	135.6	146.5	151.7	193.3
Forage area	ha.	0.39	0.18	0.20	0.32	0.32
Labour hours	hrs.	7.2	7.4	7.6	9.9	8.8
Livestock units of beef		0.47	0.33	0.34	0.41	0.45
Liveweight production	kg.	106	142	124	136	173
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)						
		£	£	£	£	£
Output		257.3	566.4	499.5	312.2	314.6
Costs		250.4	503.8	480.4	305.1	338.1
Net Margin		6.9	62.7	19.2	7.1	-23.5
Gross Margin		164.7	311.3	239.0	174.8	159.2
Capital		541.0	767.8	731.8	473.7	608.1
Labour hours	hrs.	19	42	38	31	28
Liveweight production	kg.	273	806	620	426	545
Grassland area to beef	ha.	0.96	0.85	0.96	0.99	0.95
Nitrogen use on grass	kg/ha.	95	83	88	50	77
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)						
		£	£	£	£	£
Output		47.6	73.8	68.3	65.9	51.7
Costs		46.3	65.6	65.6	64.4	55.6
Net Margin		1.3	8.2	2.6	1.5	-3.9
Gross Margin		30.4	40.5	32.7	36.9	26.2
Capital (composition)						
Cattle		88.6	83.4	85.4	89.8	85.1
Beef Equipment		4.3	5.5	6.4	3.4	6.6
Grass and Forage Equipment		7.1	11.1	8.3	6.8	8.4
Total		100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK(PER LIVESTOCK UNIT)						
		£	£	£	£	£
Output		213.9	300.1	293.8	245.1	221.4
Costs		208.2	266.9	282.6	239.6	237.9
Net Margin		5.7	33.2	11.3	5.6	-16.5
Gross Margin		136.9	164.9	140.6	137.2	112.0
Capital		449.8	406.7	430.4	372.0	427.9
Forage area to beef	ha.	0.83	0.53	0.59	0.79	0.70
Grassland area to beef	ha.	0.80	0.45	0.56	0.77	0.67
Labour hours	hrs.	15	22	22	24	19
Liveweight production	kg.	227	427	365	334	384

ANALYSIS OF CONCENTRATE FEEDING COSTS:

"PREDOMINANT" INTAKE FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle intake in one type-class)

Group	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU Summer Winter			Cereals	Milk & Milk subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	23	31	9	91	58	-	22	-	17	3	56	-	23	2	13	6
2	33	96	29	71	36	13	49	1	1	-	36	9	48	1	3	4
4	35	110	19	81	42	6	47	-	3	2	60	4	29	-	2	5
5	19	66	16	84	35	10	52	-	3	1	58	3	31	-	3	6
7	21	59	5	95	39	-	26	-	14	21	22	-	71	-	2	5

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

"PREDOMINANT INTAKE FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle intake in one type-class)

Group	1	2	4	5	7
Number of Farms	23	33	35	19	21
Average forage area for beef Ha.	81.1	22.7	36.3	49.1	33.6
	Number of head per farm				
Intake during year	62	45	73	57	107
Composition of cattle intake	%	%	%	%	%
Single suckle calves, home bred	93	1	3	34	-
Dairy calves retained for beef	-	98	1	16	-
Purchased calves 0 - 3 months	3	-	94	46	1
" " 3 - 12 "	-	-	2	2	2
Purchased stores 12 - 18 "	-	1	-	2	96
" " 18 - 24 "	3	-	-	-	1
" " over 24 "	-	1	-	-	-
	100	100	100	100	100
	Number of head per farm				
Output during year	60	41	64	54	110
Composition of cattle output	%	%	%	%	%
Fat up to 18 months	24	13	31	16	9
Fat 18 - 24 "	6	30	31	31	44
Fat over 24 "	11	14	13	5	20
Stores up to 12 months	31	14	1	12	-
" 12 - 18 "	22	10	10	21	11
" 18 - 24 "	4	15	8	14	14
" over 24 "	1	5	6	1	2
	100	100	100	100	100

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS:

"SPECIALIST" INTAKE FARMS IN EACH GROUP

(Farms having ALL their beef cattle intake in one type-class)

Group		1	2	4	5	7
Number of Farms		10	27	14	36	14
Average forage area for beef	Ha.	56.7	20.1	34.9	54.2	26.5
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)						
Costs		£	£	£	£	£
Concentrates		15.4	36.4	42.7	24.8	21.6
Purchased Fodder		1.6	0.0	0.5	0.9	1.6
Fertilizer		10.4	7.0	8.3	9.0	10.5
Other variable costs of forage		4.4	3.0	4.1	3.1	5.6
Other variable costs for beef		3.9	4.0	4.4	5.0	6.1
Total variable costs		35.6	50.4	60.1	42.8	45.4
Gross Margin		64.4	49.6	39.9	57.2	54.6
Labour for beef		9.7	14.2	10.1	13.6	14.1
Tr. Mv. & Equipment used for beef		7.8	5.7	8.7	4.3	8.5
Share of labour & machinery for forage and field maintenance		15.4	11.5	14.6	10.8	15.5
Rental value of forage area		16.4	8.6	9.2	12.0	15.4
General farm overheads		12.8	8.7	7.5	9.9	11.6
Total fixed costs		62.0	48.7	50.1	50.6	65.1
Total costs		97.7	99.1	110.3	93.4	110.5
Net Margin (over the above costs)		2.3	0.9	-10.3	6.6	-10.5
Capital		212.6	135.5	162.1	160.6	210.0
Forage area	ha.	0.39	0.19	0.21	0.29	0.34
Labour hours	hrs.	6.0	8.9	6.3	8.5	8.8
Livestock units of beef		0.51	0.33	0.37	0.38	0.50
Liveweight production	kg.	82	143	145	114	138
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)						
		£	£	£	£	£
Output		255.9	532.9	470.1	345.6	295.1
Costs		250.0	527.9	518.3	323.0	326.1
Net Margin		5.9	5.0	-48.3	22.7	-31.0
Gross Margin		164.7	264.4	187.4	197.7	161.1
Capital		544.1	722.0	761.8	555.2	619.6
Labour hours	hrs.	15	47	30	29	26
Liveweight production	kg.	211	762	682	393	406
Grassland area to beef	ha.	0.99	0.83	0.96	0.96	0.94
Nitrogen use on grass	kg/ha.	71	89	120	84	96
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)						
		£	£	£	£	£
Output		47.0	73.8	61.7	62.3	47.6
Costs		45.9	73.1	68.0	58.2	52.6
Net Margin		1.1	0.7	-6.3	4.1	-5.0
Gross Margin		30.3	36.6	24.6	35.6	26.0
Capital (composition)						
Cattle		86.7	82.3	75.9	91.7	81.2
Beef Equipment		4.6	5.7	11.6	3.1	9.3
Grass and Forage Equipment		8.7	12.0	12.5	5.2	9.6
Total		100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)						
		£	£	£	£	£
Output		197.5	306.1	271.7	263.9	199.0
Costs		192.9	303.2	299.5	246.6	219.9
Net Margin		4.6	2.8	-27.9	17.3	-20.9
Gross Margin		127.1	151.8	108.3	150.9	108.6
Capital		419.8	414.7	440.3	423.9	417.9
Forage area to beef	ha.	0.77	0.57	0.58	0.76	0.67
Grassland area to beef	ha.	0.76	0.48	0.55	0.73	0.63
Labour hours	hrs.	12	27	17	22	17
Liveweight production	kg.	163	438	394	300	274

ANALYSIS OF CONCENTRATE FEEDING COSTS:

"SPECIALIST" INTAKE FARMS IN EACH GROUP

(Farms having ALL their beef cattle intake in one type-class)

Group	Number of farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	10	30	11	89	68	-	6	-	19	7	54	-	16	4	14	13
2	27	111	31	69	37	11	50	1	1	-	37	8	48	1	3	3
4	14	116	20	80	44	4	42	-	5	5	63	4	28	-	2	3
5	36	65	16	84	42	5	48	1	4	-	59	3	29	1	5	4
7	14	43	11	89	47	-	18	-	13	22	47	-	39	-	2	11

COMPOSITION OF BEEF CATTLE DISPOSAL:

"SPECIALIST" INTAKE FARMS IN EACH GROUP

(Farms having ALL their beef cattle intake in one type-class)

Group		1	2	4	5	7
Number of farms		10	27	14	36	14
Average forage area for beef	Ha.	56.7	20.1	34.9	54.2	26.5
			Number of head per farm			
Output during year		53	39	61	61	66
Composition of cattle output		%	%	%	%	%
Fat up to 18 months		24	14	36	19	8
Fat 18 - 24 "		15	32	29	30	23
Fat over 24 "		5	14	9	13	31
Stores up to 12 months		13	18	1	14	0
" 12 - 18 "		37	10	12	14	18
" 18 - 24 "		5	5	4	8	14
" over 24 "		0	6	9	2	5
		100	100	100	100	100

SECTION II

Survey results for beef enterprises grouped on the basis of their beef cattle output (disposals).

CLASSIFICATION ON THE BASIS OF BEEF CATTLE OUTPUT (DISPOSALS)

Type of Output	Group
50% or more as fat cattle, of which 50% or more were:	
up to 18 months old	1
over 18 and up to 24 months old	2
Over 24 months old	3
mixed ages, no age group accounting for 50% of fat cattle sales	4
Over 50% as stores of which 50% or more were:	
up to 12 months old	5
over 12 and up to 18 months old	6
over 18 and up to 24 " "	7
over 24 months old	8
mixed ages, no age group accounting for 50% of store cattle sales	9
Mixed store and fat, neither category predominating (only applicable where a higher classifying factor than 50% is used)*	10
Nil sales in 1978/79	11

* Note More specialised types can be obtained by using a factor greater than 50%, but at the expense of increasing the proportion of sample in the "mixed" groups. See Tables

DISTRIBUTION OF OUTPUT GROUPS BY UNIVERSITY CENTRE

UNIVERSITY OR COLLEGE CENTRE (2) / OUTPUT GROUP (1)	1	2	3	4	5	6	7	8	9	11	Total
	Number of farms										
Aberystwyth	1	2	5	-	-	3	5	-	-	-	16
Askham Bryan College	6	11	3	-	2	2	-	-	-	-	24
Cambridge	4	5	2	-	2	1	1	-	-	-	15
Exeter	2	7	16	1	1	3	5	4	-	-	39
Manchester	-	5	2	-	3	4	1	-	-	-	15
Newcastle	-	8	3	-	3	3	3	1	-	1	22
Nottingham	2	9	2	-	-	1	1	1	-	-	16
Reading	4	12	6	-	2	6	3	1	1	-	35
Wye College	-	3	1	-	3	2	2	-	-	-	11
Total	19	62	40	1	16	25	21	7	1	1	193

(1) See page 29

(2) For the counties covered by each University/College see Appendix II.

AVERAGE CROPPING (Ha) PER FARM: OUTPUT GROUPS

Type Group	1	2	3	5	6	7/8	Whole Sample
Number of Farms	19	62	40	16	25	28	193
Cropping				Hectares			
Cereals	86.5	62.9	46.8	47.9	50.2	22.5	52.4
Sugar Beet	7.4	1.8	2.1	1.3	-	-	1.8
Potatoes	3.1	2.5	1.0	0.6	1.7	1.1	1.7
Horticulture	4.9	0.1	3.1	-	0.7	0.5	1.3
Herbage seed	-	-	-	-	-	0.4	0.1
Other cash crops	10.2	2.0	2.8	-	-	1.4	2.4
Fodder crops	2.6	2.2	2.0	4.9	1.3	1.7	2.2
Permanent pasture	32.4	42.0	34.0	43.2	26.1	39.1	36.8
Leys	19.9	24.1	29.8	43.4	40.2	17.3	27.4
Rough grazing	1.8	3.7	3.7	9.5	2.9	3.6	3.8
Other	6.2	2.4	1.4	2.0	3.2	1.7	2.5
Total	175.1	143.6	126.7	152.8	126.2	89.4	132.4

AVERAGE STOCKING PER FARM: OUTPUT GROUPS

Type Group	1	2	3	5	6	7/8	Whole Sample
Number of Farms	19	62	40	16	25	28	193
Type of stock				Head of stock			
Dairy cows	21.6	14.2	15.4	36.6	22.8	23.6	19.3
Beef cows	27.9	14.8	7.1	44.1	18.9	13.8	17.3
Other cattle	149.5	122.6	129.2	107.2	86.5	108.8	117.6
Sheep: ewes	14.3	82.9	114.2	129.9	96.1	62.4	84.0
other sheep over 6 months	15.6	25.5	22.3	16.3	22.5	36.5	25.0
Pigs: sows	15.4	4.1	6.9	3.7	8.1	0.1	5.6
other pigs	94.1	24.9	55.5	18.1	41.7	0.3	35.7
Poultry	872.1	609.7	3.0	3.7	103.6	1.5	296.8
Horses etc.	2.2	0.3	0.4	-	0.3	0.2	0.5

AVERAGE OUTPUT, COSTS, MARGIN AND CAPITAL PER FARM: OUTPUT GROUPS

Group	1	2	3	5	6	7/8	Whole Sample
Number of Farms	19	62	40	16	25	28	193
	£	£	£	£	£	£	£
OUTPUT	23109	18861	12958	12350	10563	13737	15534
COSTS							
Concentrates	8240	6263	3439	2558	2893	2671	4526
Purchased fodder	143	199	96	135	263	121	161
Fertilizer	2673	1228	1242	1011	898	1197	1298
Other variable costs of fodder:							
Sprays	38	27	17	24	24	30	25
Seed	296	170	164	106	121	184	171
Contract	140	65	95	173	69	107	93
Bought grass	163	334	70	0	11	72	150
Miscellaneous	145	127	109	74	54	111	108
Total	783	722	454	376	278	504	547
Other variable costs of beef:							
Transport	171	213	120	96	128	173	163
Vet. and medicines	468	372	238	349	209	340	321
Miscellaneous	368	368	155	265	137	182	254
Total	1007	953	513	709	474	695	738
Labour for beef	2229	2540	1620	1998	1558	1897	2033
Tractors, motor vehicle and equipment used for beef	1215	1185	835	874	566	621	920
Share of labour, tractor and machinery costs for forage production and field maint.	2823	2072	1833	1190	1377	1871	1889
Rental value of forage area	2362	1907	1947	1526	1286	1668	1804
General farm overheads	1867	1686	1445	1439	1180	1457	1525
Total costs	23342	18754	13425	11816	10773	12703	15441
NET MARGIN (over above costs)	-232	107	-467	535	-210	1035	94
CAPITAL							
Cattle in opening valuation	28660	27406	22789	19696	15148	25199	23755
Beef equipment	2492	1110	1512	752	780	1013	1226
Share of grass and forage equipment	3057	2061	2122	1120	1708	2009	2019
Total capital	34209	30576	26423	21568	17636	28221	27000
Total labour input	3213	3287	2255	2447	2012	2525	2696
Total tractor input	1201	1320	758	952	640	790	992
Total machinery input	1613	934	1034	549	701	895	942
Subsidies (excl. F.S. premiums) included in output	170	230	29	47	43	151	128
PHYSICAL INPUTS AND PRODUCTION							
Labour hours to beef Hrs.	1393	1587	1013	1249	973	1186	1270
Forage area used for beef Ha.	51	46	43	42	34	41	43
- of which grass area = Ha.	46	44	41	40	32	40	41
Livestock units of beef, (average during the year)	73	74	59	58	44	63	63
Liveweight production in the year Kg.	27467	22744	16003	15593	14484	20751	19646

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND LIVESTOCK UNITS: OUTPUT GROUPS

Group		1	2	3	5	6	7/8	Whole Sample
Number of farms		19	62	40	16	25	28	193
Average forage area for beef	Ha.	50.5	46.1	43.0	42.1	33.5	40.9	43.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)								
Costs		£	£	£	£	£	£	£
Concentrates		35.7	33.2	26.5	20.7	27.4	19.4	29.1
Purchased fodder		0.6	1.1	0.7	1.1	2.5	0.9	1.0
Fertilizer		11.6	6.5	9.6	8.2	8.5	8.7	8.4
Other variable costs of forage		3.4	3.8	3.5	3.0	2.6	3.7	3.5
Other variable costs for beef		4.4	5.1	4.0	5.7	4.5	5.1	4.8
Total variable costs		55.6	49.6	44.3	38.8	45.5	37.8	46.8
Gross Margin		44.4	50.4	55.7	61.0	54.5	62.3	53.2
Labour for beef		9.6	13.5	12.5	16.2	14.7	13.8	13.1
Tr. Mv. & Equipment used for beef		5.3	6.3	6.4	7.1	5.4	4.5	5.9
Share of labour and machinery for forage and field maintenance		12.2	11.0	14.1	9.6	13.0	13.6	12.2
Rental value of forage area		10.2	10.1	15.0	12.4	12.2	12.1	11.6
General farm overheads		8.1	8.9	11.1	11.6	11.2	10.6	9.8
Total fixed costs		45.4	49.8	59.3	56.9	56.5	54.7	52.6
Total costs		101.0	99.4	103.6	95.7	102.0	92.5	99.4
Net Margin (over the above costs)		-1.0	0.6	-3.6	4.3	-2.0	7.5	0.6
Capital		148.0	162.1	203.9	174.6	167.0	205.4	173.8
Forage area	ha.	0.22	0.24	0.33	0.34	0.32	0.30	0.28
Labour hours	hrs.	6.0	8.4	7.8	10.1	9.2	8.6	8.2
Livestock units of beef		0.32	0.39	0.46	0.47	0.42	0.46	0.41
Liveweight production	kg.	119	121	123	126	137	151	126
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)								
		£	£	£	£	£	£	£
Output		457.9	409.3	301.3	293.5	314.9	335.9	361.3
Costs		462.5	406.9	312.2	280.8	321.2	310.6	359.1
Net Margin		-4.6	2.3	-10.9	12.7	-6.3	25.3	2.2
Gross Margin		203.4	206.1	167.8	179.0	171.6	209.2	192.2
Capital		677.8	663.5	614.5	512.6	525.8	690.1	628.0
Labour hours	hrs.	28	34	24	30	29	29	30
Liveweight production	kg.	544	494	372	371	432	507	457
Grassland area to beef	ha.	0.92	0.96	0.96	0.96	0.96	0.97	0.96
Nitrogen use on grass	kg/ha.	150	75	76	55	87	66	82
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)								
		£	£	£	£	£	£	£
Output		67.6	61.7	49.0	57.3	59.9	48.7	57.5
Costs		68.2	61.3	50.8	54.8	61.1	45.0	57.2
Net Margin		-0.7	0.3	-1.8	2.5	-1.2	3.7	0.3
Gross Margin		30.0	31.1	27.3	34.9	32.6	30.3	30.6
Capital (composition)								
Cattle		83.8	89.6	86.2	91.3	85.9	89.3	88.0
Beef Equipment		7.3	3.6	5.7	3.5	4.4	3.6	4.5
Grass & Forage Equipment		8.9	6.7	8.0	5.2	9.7	7.1	7.5
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)								
		£	£	£	£	£	£	£
Output		315.0	255.4	219.6	212.9	239.4	219.3	245.0
Costs		318.1	254.0	227.5	203.7	244.2	202.8	243.5
Net Margin		-3.2	1.4	-7.9	9.2	-4.8	16.5	1.5
Gross Margin		139.9	128.6	122.3	129.8	130.5	136.6	130.3
Capital		466.3	414.1	447.8	371.9	399.7	450.5	425.8
Forage area to beef	ha.	0.69	0.62	0.73	0.73	0.76	0.65	0.68
Grassland area to beef	ha.	0.63	0.60	0.70	0.69	0.73	0.64	0.65
Labour hours	hrs.	19	21	17	22	22	19	20
Liveweight production	kg.	374	308	271	269	328	331	310

ANALYSIS OF CONCENTRATE FEEDING COSTS:

OUTPUT GROUPS

Group	Number of farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	19	112	23	77	42	5	36	14	4	-	56	2	28	9	2	4
2	62	85	18	82	50	5	28	-	11	6	50	3	32	-	4	12
3	40	58	11	89	40	12	40	-	8	-	72	2	19	-	3	4
5	16	44	24	76	22	11	64	-	3	-	39	8	34	4	12	4
6	25	66	18	82	38	5	48	-	6	3	55	5	29	-	8	3
7	28	43	17	83	31	10	55	-	3	-	51	2	38	-	3	5
Whole Sample	193	71	18	82	43	6	37	4	7	3	55	3	29	2	4	7

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL: OUTPUT GROUPS

Group	1	2	3	5	6	7/8	Whole Sample
Number of farms	19	62	40	16	25	28	193
			Number of head per farm				
Intake during year	100	97	59	55	50	51	73
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves born	16	12	7	62	28	19	17
Dairy calves retained for beef	15	10	8	25	8	28	13
Purchased calves 0 - 3 months	49	22	23	8	29	23	26
" " 3 - 12 "	12	16	22	-	10	12	14
" stores 12 - 18 "	8	34	28	1	25	16	25
" " 18 - 24 "	-	5	8	4	-	2	4
" " over 24 "	-	1	4	-	-	-	1
	100	100	100	100	100	100	100
			Number of head per year				
Output during year	94	90	60	79	57	57	74
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	90	6	1	1	5	1	15
" 18 - 24 "	4	85	15	2	3	14	39
" over 24 "	-	4	75	-	-	6	15
Stores up to 12 "	2	1	-	87	6	1	9
" 12 - 18 "	4	2	1	10	76	8	11
" 18 - 24 "	-	2	4	-	10	57	9
" over 24 "	-	-	4	-	-	13	2
	100	100	100	100	100	100	100

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS: PREMIUM FARMS (BEST 25% IN EACH OUTPUT GROUP

Group		1	2	3	5	6	7/8	Whole Sample
Number of farms		5	15	10	4	6	7	48
Average forage area for beef	Ha.	44.1	43.6	27.3	42.1	30.5	66.0	45.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)								
Costs		£	£	£	£	£	£	£
Concentrates		22.6	29.9	20.9	23.6	23.7	14.4	22.9
Purchased Fodder		0.0	1.2	1.6	0.6	4.8	0.5	1.2
Fertilizer		8.6	3.8	4.0	4.9	9.8	7.1	6.4
Other variable costs of forage		2.4	2.0	1.5	3.7	1.9	4.1	2.5
Other variable costs for beef		2.5	3.6	3.2	2.3	3.7	4.3	3.5
Total variable costs		36.2	40.5	31.2	35.0	43.9	30.3	36.3
Gross Margin		63.8	59.5	68.8	64.9	56.1	69.7	63.6
Labour for beef		6.3	9.9	11.1	15.1	7.3	7.7	9.0
Tr. Mv. & Equipment used for beef		2.2	4.4	3.5	4.3	2.8	3.8	3.8
Share of labour & machinery for forage and field maintenance		8.2	7.2	9.7	4.3	7.5	11.8	8.5
Rental value of forage area		6.1	8.1	8.1	8.7	8.9	8.4	8.3
General farm overheads		5.7	6.2	8.7	8.1	6.7	7.9	7.2
Total fixed costs		28.5	35.7	41.1	40.5	33.2	39.6	36.7
Total costs		64.7	76.2	72.2	75.5	77.1	69.9	73.0
Net Margin (over the above costs)		35.3	23.8	27.8	24.5	22.9	30.1	27.0
Capital		128.5	131.5	154.9	120.6	140.7	175.2	146.3
Forage area	ha.	0.15	0.17	0.23	0.21	0.19	0.23	0.20
Labour hours	hrs.	3.9	6.2	6.9	9.5	4.6	4.8	5.6
Livestock units of beef		0.30	0.33	0.37	0.35	0.34	0.39	0.36
Liveweight production	kg.	97	113	126	108	149	126	119
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)								
		£	£	£	£	£	£	£
Output		672.7	585.0	428.4	476.5	517.1	439.3	494.7
Costs		435.0	445.7	309.4	359.8	398.8	307.0	361.3
Net Margin		237.7	139.2	119.0	116.7	118.4	132.3	133.4
Gross Margin		429.3	348.2	294.9	306.9	290.1	306.2	314.8
Capital		864.7	769.2	663.4	574.4	727.5	769.7	724.0
Labour hours	hrs.	26	36	30	45	24	21	28
Liveweight production	kg.	655	659	538	514	772	552	591
Grassland area to beef	ha.	0.99	0.91	0.96	1.00	0.88	0.97	0.95
Nitrogen use on grass	kg/ha.	157	71	31	69	174	73	86
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)								
		£	£	£	£	£	£	£
Output		77.8	76.0	64.6	83.0	71.1	57.1	68.3
Costs		50.3	57.9	46.6	62.6	54.8	39.9	49.9
Net Margin		27.5	18.1	17.9	20.3	16.3	17.2	18.4
Gross Margin		49.7	45.3	44.4	53.4	39.9	39.8	43.5
Capital (composition)								
Cattle		94.0	92.4	89.7	94.6	93.1	88.5	91.7
Beef Equipment		1.9	2.4	3.4	3.7	1.9	3.1	2.5
Grass & Forage Equipment		4.1	5.2	6.9	1.6	5.0	8.4	5.8
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)								
		£	£	£	£	£	£	£
Output		330.0	298.9	267.4	283.4	291.6	258.8	280.9
Costs		213.4	227.7	193.1	214.0	224.8	180.9	205.2
Net Margin		116.6	71.1	74.3	69.4	66.8	78.0	75.8
Gross Margin		210.6	177.9	184.1	182.5	163.5	180.4	178.8
Capital		424.2	393.0	414.1	341.6	410.2	453.5	411.2
Forage area to beef	ha.	0.49	0.51	0.62	0.59	0.56	0.59	0.57
Grassland area to beef	ha.	0.48	0.47	0.60	0.59	0.50	0.57	0.54
Labour hours	hrs.	13	18	19	27	13	12	16
Liveweight production	kg.	321	337	336	306	435	325	336

ANALYSIS OF CONCENTRATE FEEDING COSTS:

PREMIUM FARMS (BEST 25%) IN EACH OUTPUT GROUP

Group	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	5	75	16	84	55	15	17	1	12	-	73	3	11	3	4	6
2	15	89	27	73	66	2	13	1	13	5	70	3	12	-	8	6
3	10	56	16	84	17	18	61	-	5	-	64	3	30	-	1	2
5	4	67	18	82	30	12	56	1	-	-	36	12	34	3	16	-
6	6	69	18	82	34	7	57	-	1	1	80	3	11	-	6	-
7	7	37	16	84	33	11	55	1	-	1	56	2	37	1	3	1
Whole Sample	48	64	21	79	54	7	26	1	9	3	66	4	19	1	6	4

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

PREMIUM FARMS (BEST 25%) IN EACH OUTPUT GROUP

Group	1	2	3	5	6	7/8	Whole Sample
Number of farms	5	15	10	4	6	7	48
Average forage area for beef Ha.	44.1	43.6	27.3	42.1	30.5	66.0	45.0
			Number of head per farm				
Intake during year	96	103	40	73	49	80	81
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	29	18	2	57	36	21	26
Dairy calves retained for beef	19	8	25	33	18	42	19
Purchased calves 0 - 3 months	34	35	39	10	18	22	26
" " 3 - 12 "	16	20	-	-	25	-	12
Purchased stores 12 - 18 "	3	13	1	-	2	13	9
" " 18 - 24 "	-	5	15	-	-	2	6
" " over 24 "	-	1	17	-	-	-	2
	100	100	100	100	100	100	100

			Number of head per farm				
Output during year	103	100	48	75	67	68	82
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	87	12	6	1	14	2	19
Fat 18 - 24 "	5	76	14	10	-	3	32
Fat over 24 "	-	1	69	-	-	10	12
Stores up to 12 months	5	1	1	73	6	1	11
" 12 - 18 "	2	6	-	17	81	7	12
" 18 - 24 "	-	4	9	-	-	58	10
" over 24 "	-	-	1	-	-	19	4
	100	100	100	100	100	100	100

VARIABILITY OF MARGINS PER £100 OUTPUT IN EACH OUTPUT GROUP

Output Group	Group				Premium farms (best 25% of margins)		
	Number of Farms	Range of Margins		Standard Error	Number of Farms	Range of margins	
		Minimum	Maximum			Minimum	Maximum
1	19	-117.7	52.2	8.86	5	24.8	52.2
2	62	-249.8	65.9	6.40	15	13.4	65.9
3	40	-120.1	35.8	5.44	10	9.7	35.8
5	16	-61.2	42.7	7.18	4	17.0	42.7
6	25	-134.7	44.2	7.92	6	8.9	44.2
7 & 8	28	-143.0	51.7	7.97	7	15.7	51.7
Whole Sample	193	-249.8	65.9	3.04	48	13.7	65.9

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND LIVESTOCK UNITS: "PREDOMINANT" OUTPUT FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle output in one type-class)

Group		1	2	3	4	5	6	9
Number of farms		17	40	20	24	8	11	23
Average forage area for beef	ha.	47.6	54.7	40.7	36.9	58.2	35.1	33.9
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)								
Costs		£	£	£	£	£	£	£
Concentrates		37.5	32.4	25.3	38.0	14.1	26.9	28.4
Purchased fodder		0.7	0.9	0.5	1.1	0.0	3.9	2.1
Fertilizer		11.8	6.8	10.1	7.9	8.8	8.9	5.8
Other variable costs of forage		3.3	4.3	3.7	2.7	2.5	2.1	3.3
Other variable costs for beef		4.6	5.4	3.9	4.6	6.3	4.2	5.4
Total variable costs		57.9	49.8	43.5	54.3	31.7	45.9	45.1
Gross Margin		42.1	50.2	56.5	45.7	68.3	54.1	54.7
Labour for beef		9.4	13.9	12.0	12.3	18.9	11.0	18.2
Tr. Mv. & Equipment used for beef		5.5	6.8	8.4	5.0	9.2	6.0	5.6
Share of labour & machinery for forage and field maintenance		11.7	11.5	15.3	11.5	10.7	11.8	12.5
Rental value of forage area		9.8	10.9	15.3	11.4	16.5	12.4	10.1
General farm overheads		7.7	9.4	11.2	9.1	13.2	9.6	12.2
Total fixed costs		44.2	52.4	62.3	49.3	68.6	50.8	58.6
Total costs		102.0	102.2	105.8	103.6	100.3	96.7	103.7
Net Margin (over the above costs)		-2.0	-2.2	-5.8	-3.6	-0.3	3.3	-3.7
Capital		143.9	164.4	208.7	175.0	203.1	149.0	179.5
Forage area	ha.	0.21	0.26	0.34	0.25	0.39	0.29	0.34
Labour hours	hrs.	5.9	8.7	7.5	7.7	11.8	6.9	11.4
Livestock units of beef		0.30	0.39	0.45	0.40	0.51	0.38	0.46
Liveweight production	kg.	126	118	112	122	124	131	133
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)								
		£	£	£	£	£	£	£
Output		477.2	381.3	298.0	400.1	253.4	346.2	298.5
Costs		487.0	389.7	315.1	414.4	254.1	334.7	309.4
Net Margin		-9.8	-8.5	-17.1	-14.4	-0.7	11.5	-10.9
Gross Margin		201.1	191.4	168.3	182.9	173.2	187.3	163.4
Capital		686.6	626.8	621.9	700.1	514.5	516.0	535.7
Labour hours	hrs.	28	33	22	31	30	24	34
Liveweight production	kg.	601	450	332	488	315	453	398
Grassland area to beef	ha.	0.94	0.97	0.97	0.93	0.94	0.94	0.99
Nitrogen use on grass	kg/ha.	157	74	82	70	43	95	49
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)								
		£	£	£	£	£	£	£
Output		69.5	60.8	47.9	57.1	49.2	67.1	55.7
Costs		70.9	62.2	50.7	59.2	49.4	64.9	57.7
Net Margin		-1.4	-1.4	-2.8	-2.1	-0.1	2.2	-2.0
Gross Margin		29.3	30.5	27.1	26.1	33.7	36.3	30.5
Capital (composition)								
Cattle		82.4	89.1	83.4	90.1	90.7	83.2	88.8
Beef Equipment		8.3	3.9	8.4	2.7	3.6	6.4	3.3
Grass & Forage Equipment		9.3	7.0	8.2	7.2	5.7	10.4	7.9
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)								
		£	£	£	£	£	£	£
Output		331.0	257.4	222.9	250.3	195.7	260.6	215.4
Costs		337.7	263.1	235.8	259.3	196.2	251.9	223.3
Net Margin		-6.8	-5.7	-12.8	-9.0	-0.5	8.7	-7.9
Gross Margin		139.5	129.2	126.0	114.4	133.7	141.0	117.9
Capital		476.2	423.2	465.4	438.1	397.3	388.4	386.7
Forage area to beef	ha.	0.69	0.68	0.75	0.63	0.77	0.75	0.72
Grassland area to beef	ha.	0.65	0.66	0.72	0.58	0.73	0.71	0.71
Labour hours	hrs.	20	22	17	19	23	18	25
Liveweight production	kg.	417	304	249	306	243	341	287

ANALYSIS OF CONCENTRATE FEEDING COSTS:

"PREDOMINANT" OUTPUT FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle output in one type-class)

Group	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	17	124	23	77	43	5	33	15	3	-	58	3	26	10	1	3
2	40	83	15	85	53	4	28	1	9	5	50	2	32	-	3	13
3	20	56	9	91	41	13	40	1	4	-	80	2	10	-	3	4
4	24	95	23	77	49	3	27	-	14	7	56	1	31	-	6	7
5	8	28	13	87	-	18	79	-	3	-	38	3	25	7	19	8
6	11	70	16	84	25	6	62	-	3	4	51	7	32	-	6	4
9	23	61	25	75	23	10	61	-	5	1	40	7	44	1	6	2

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

"PREDOMINANT" OUTPUT FARMS IN EACH GROUP

(Farms having at least 80% of their beef cattle output in one type-class)

Group	1	2	3	4	5	6	9
Number of farms	17	40	20	24	8	11	23
Average forage area for beef Ha.	47.6	54.7	40.7	36.9	58.2	35.1	33.9
	Number of head per farm						
Intake during year	99	106	44	83	68	57	49
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	13	12	14	4	77	15	29
Dairy calves retained for beef	16	8	9	10	14	8	19
Purchased calves 0 - 3 months	49	27	17	14	2	35	34
" " 3 - 12 "	12	16	24	21	-	12	6
Purchased stores 12 - 18 "	9	32	29	40	-	29	13
" " 18 - 24 "	-	5	8	8	6	-	-
" " over 24 "	-	-	-	4	-	-	-
	100	100	100	100	100	100	100
	Number of head per farm						
Output during year	92	96	53	83	102	65	57
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	92	1	-	14	-	-	1
Fat 18 - 24 "	5	98	5	46	-	1	3
Fat over 24 "	-	-	94	38	-	-	-
Stores up to 12 months	1	-	-	-	99	2	24
" 12 - 18 "	2	-	-	1	1	97	36
" 18 - 24 "	-	-	-	1	-	-	29
" over 24 "	-	-	1	-	-	-	6
	100	100	100	100	100	100	100

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS:
"SPECIALIST" OUTPUT FARMS IN EACH GROUP
(Farms having ALL their beef cattle output in one type-class)

Group		1	2	3	4
Number of farms		10	28	14	25
Average forage area for beef	Ha.	22.6	52.1	40.0	41.4
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)					
Costs		£	£	£	£
Concentrates		44.5	33.4	22.3	37.9
Purchased fodder		0.9	1.2	0.8	0.2
Fertilizer		7.9	7.2	10.2	7.7
Other variable costs of forage		1.8	4.8	3.5	2.8
Other variable costs for beef		3.8	6.1	3.1	3.8
Total variable costs		58.9	52.7	39.9	52.4
Gross Margin		41.1	47.3	60.1	47.6
Labour for beef		8.2	14.8	11.8	11.5
Tr. Mv. & Equipment used for beef		8.0	7.1	10.1	4.7
Share of labour & machinery for forage and field maintenance		13.0	12.4	14.4	11.6
Rental value of forage area		5.2	11.0	16.4	11.4
General farm overheads		5.2	9.8	12.1	8.4
Total fixed costs		39.6	55.2	64.8	47.5
Total costs		98.6	107.9	104.7	99.9
Net Margin (over the above costs)		1.4	-7.9	-4.7	0.1
Capital		140.9	177.0	216.5	159.1
Forage area	ha.	0.13	0.27	0.36	0.24
Labour hours	hrs.	5.2	9.3	7.4	7.2
Livestock units of beef		0.25	0.41	0.46	0.37
Liveweight production	kg.	122	121	125	129
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)					
		£	£	£	£
Output		788.4	369.6	275.7	417.5
Costs		777.1	398.9	288.7	417.2
Net Margin		11.4	-29.3	-13.0	0.3
Gross Margin		323.7	174.6	165.6	198.6
Capital		1110.5	654.0	596.8	664.3
Labour hours	hrs.	41	34	20	30
Liveweight production	kg.	959	448	345	540
Grassland area to beef	ha.	0.88	0.98	0.96	0.93
Nitrogen use on grass	kg/ha.	118	71	79	85
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)					
		£	£	£	£
Output		71.0	56.5	46.2	62.8
Costs		70.0	61.0	48.4	62.8
Net Margin		1.0	-4.5	-2.2	0.0
Gross Margin		29.2	26.7	27.7	29.9
Capital (composition)					
Cattle		70.9	89.1	82.4	87.8
Beef Equipment		13.2	4.2	10.3	3.7
Grass and forage equipment		15.9	6.7	7.2	8.5
Total		100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)					
		£	£	£	£
Output		400.0	242.1	215.6	271.0
Costs		394.2	261.3	225.8	270.9
Net Margin		5.8	-19.2	-10.2	0.2
Gross Margin		164.2	114.4	129.5	128.9
Capital		563.4	428.4	466.8	431.3
Forage area to beef	ha.	0.51	0.66	0.78	0.65
Grassland area to beef	ha.	0.45	0.64	0.75	0.60
Labour hours	hrs.	21	22	16	19
Liveweight production	kg.	486	294	270	351

ANALYSIS OF CONCENTRATE FEEDING COSTS:

"SPECIALIST" OUTPUT FARMS IN EACH GROUP

(Farms having ALL their beef cattle output in one type-class)

Group	Number of farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Addivites	Other
			%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	10	178	27	73	61	3	34	-	1	-	79	3	16	1	-	-
2	28	81	16	84	46	5	36	-	10	3	51	2	27	-	3	17
3	14	48	13	87	36	14	47	1	3	-	72	2	15	-	4	7
4	25	103	22	78	55	2	25	1	12	4	56	1	34	-	5	4

COMPOSITION OF BEEF CATTLE INTAKE:

"SPECIALIST" OUTPUT FARMS IN EACH GROUP

(*farms having* ALL their beef cattle output in one type-class)

Group		1	2	3	4
Number of farms		10	28	14	25
Average forage area for beef	Ha.	22.6	52.1	40.0	41.4
		Number of head per farm			
Intake during year		80	99	37	88
Composition of cattle intake		%	%	%	%
Single suckle calves, home bred		5	10	22	4
Dairy calves retained for beef		26	10	15	9
Purchased calves 0 - 3 months		58	28	8	22
" " 3 - 12 "		3	21	23	24
Purchased stores 12 - 18 "		8	25	20	34
" " 18 - 24 "		-	6	12	6
" " over 24 "		-	-	-	-
		100	100	100	100

DISTRIBUTION OF INTAKE AND OUTPUT FARMS

Farms having at least 50% of their cattle intake and output in one type-class

Output Group (2) \ Intake Group (1)	1	2	3	4	5	6	7	8	9	10	11	Total
	Number of farms											
1	3	4	-	9	-	1	1	-	-	1	-	19
2	6	12	-	13	-	8	15	-	-	8	-	62
3	5	7	-	11	-	4	8	2	1	-	2	40
4	-	-	-	-	-	-	-	-	-	1	-	1
5	6	7	-	1	-	-	-	-	-	-	2	16
6	8	4	-	7	-	2	2	-	-	-	2	25
7	3	5	-	6	-	3	3	-	-	1	-	21
8	1	2	-	3	-	1	-	-	-	-	-	7
9	-	-	-	1	-	-	-	-	-	-	-	1
11	-	-	-	1	-	-	-	-	-	-	-	1
Total	32	41	-	52	-	19	29	2	1	11	6	193

DISTRIBUTION OF "PREDOMINANT" INTAKE AND OUTPUT FARMS

Farms having at least 80% of their cattle intake and output in one type-class

Output Group (2) \ Intake Group (1)	1	2	3	4	5	6	7	8	9	10	11	Total
	Number of farms											
1	2	3	-	6	2	-	1	-	-	3	-	17
2	1	5	-	7	5	4	3	-	-	15	-	40
3	4	2	-	3	1	1	5	1	-	1	2	20
4	-	3	-	3	2	1	5	-	-	10	-	24
5	4	3	-	-	-	-	-	-	-	-	1	8
6	2	1	-	3	2	1	1	-	-	1	-	11
7	-	2	-	-	1	-	1	-	-	2	-	6
8	-	1	-	-	-	-	-	-	-	1	-	2
9	5	4	1	4	4	-	1	-	-	2	2	23
10	5	9	1	9	2	2	4	-	-	8	1	41
11	-	-	-	-	-	-	-	-	-	1	-	1
Total	23	33	2	35	19	9	21	1	-	44	6	193

DISTRIBUTION OF "SPECIALIST" INTAKE AND OUTPUT FARMS

Farms having ALL their beef cattle intake and output in one type-class

Output Group (2) \ Intake Group (1)	1	2	3	4	5	6	7	8	9	10	11	Total
	Number of farms											
1	1	2	-	1	3	-	1	-	-	2	-	10
2	-	4	-	2	6	3	1	-	-	12	-	28
3	-	2	-	-	4	-	2	1	-	3	2	14
4	1	4	-	3	3	-	3	-	-	11	-	25
10	8	15	4	8	20	1	7	-	-	48	4	115
11	-	-	-	-	-	-	-	-	-	1	-	1
Total	10	27	4	14	36	4	14	1	-	77	6	193

(1) See classification on the basis of beef cattle intake, page 9
(2) See classification on the basis of beef cattle output, page 29

SECTION III

Survey results for beef enterprises grouped on the basis of the standard man-day type of farming class of the farm.

CLASSIFICATION BASED ON STANDARD MAN-DAY TYPE OF FARMING CLASSIFICATION[1]

Type of Farming Class	Distribution of total standard man-days[2]
1. Specialist dairy	75% or more in dairying
2. Mainly dairy	More than 50% and less than 75% in dairying.
3. Livestock rearing and fattening: mostly cattle	More than 50% in livestock rearing and fattening of which: 75% or more in cattle
4. Livestock rearing and fattening: mostly sheep	75% or more in sheep
5. Livestock rearing and fattening: cattle and sheep	Other holdings with more than 50% in livestock rearing.
6. Predominantly poultry	75% or more in pigs and poultry, of which 75% or more in poultry
7. Pigs and poultry	75% or more in pigs and poultry, of which less than 75% in poultry More than 50% and less than 75% in pigs and poultry
8. Cropping: mostly cereals	More than 50% in cropping of which: 50% or more in cereals
9. General cropping	Less than 50% in cereals
10. Predominantly vegetables	75% or more in horticulture of which: 75% or more in horticultural vegetables
11. Predominantly fruit	75% or more in fruit
12. General horticulture	75% or more in horticulture, of which neither horticultural vegetables nor fruit are 75% or more More than 50% and less than 75% in horticulture
13. Mixed	No more than 50% in any main enterprise

(1) For more details of the method of classification and farm-type see Farm Classification in England and Wales 1976-77. H.M.S.O.

(2) See page 50

NATIONAL BEEF PRODUCTION SURVEY 1978-79

Standard man-day requirements used to classify farms in the Survey

	Standard Man-Days per hectare
Cereals	2.5
Sugarbeet	11
Potatoes	28
Horticulture	50
Herbage seed	2.5
Other cash crops	2.5
Fodder crops	5
Catch crops	1
Grass sown in or before 1973	1
Grass sown after 1973	2

	per head
Dairy cows	7
Beef cows	2.5
Other cattle	1.5
Sheep - ewes	0.5
- other over 6 months	0.25
Pigs - sows	3.5
- other	0.5
Poultry	0.07

DISTRIBUTION OF STANDARD MAN-DAY TYPE OF FARMING GROUPS BY UNIVERSITY CENTRE

UNIVERSITY OR COLLEGE CENTRE (2) / TYPE GROUP (1)	1	2	3	4	5	6	7	8	9	10-12	13	Total
	Number of farms											
Aberystwyth	2	3	9	-	1	-	-	-	1	-	-	16
Askham Bryan College	1	1	8	-	1	-	2	3	7	1	-	24
Cambridge	-	1	5	-	2	-	1	3	-	-	3	15
Exeter	4	3	16	-	11	-	-	-	-	1	4	39
Manchester	7	3	2	-	1	-	-	-	2	-	-	15
Newcastle	3	3	12	-	3	-	1	-	-	-	-	22
Nottingham	1	1	4	-	3	-	-	1	3	-	3	16
Reading	3	2	14	-	6	-	1	7	1	-	1	35
Wye College	1	-	6	1	-	1	1	1	-	-	-	11
Total	22	17	76	1	28	1	6	15	14	2	11	193

DISTRIBUTION OF STANDARD MAN-DAY TYPE OF FARMING GROUPS BY S.M.D. SIZE CATEGORIES

SIZE CATEGORY S.M.D. / TYPE GROUP (1)	1	2	3	4	5	6	7	8	9	10-12	13	Total
	Number of farms											
Under 250	-	1	20	1	3	-	-	3	1	-	-	29
250 to 499	2	1	24	-	10	-	-	3	4	-	5	49
500 to 999	10	4	20	-	10	-	3	2	4	-	3	56
1000 to 1499	4	4	7	-	2	-	-	2	1	1	-	21
1500 to 1999	4	3	2	-	1	1	2	3	3	-	1	20
2000 to 3499	2	4	3	-	1	-	1	1	1	-	-	13
3500 and over	-	-	-	-	1	-	-	1	-	1	2	5
Total	22	17	76	1	28	1	6	15	14	2	11	193

(1) See page 49
(2) For the counties covered by each University/College see Appendix II.

AVERAGE CROPPING (HA) PER FARM: S.M.D. TYPE OF FARMING GROUPS

Type/Group	1	2	3	5	7	8	9	13	Whole Sample
Number of Farms	22	17	76	28	6	15	14	11	193
Cropping				Hectares					
Cereals	11.8	29.5	41.0	46.1	58.7	179.3	67.3	50.7	52.4
Sugar beet	-	0.7	0.2	-	1.2	7.5	4.8	8.6	1.8
Potatoes	0.1	1.4	0.5	0.9	0.4	3.2	12.2	2.5	1.7
Horticulture	-	-	0.1	-	0.7	1.9	0.6	6.3	1.3
Herbage seed	0.5	-	-	-	-	-	-	-	0.1
Other cash crops	-	0.4	0.3	1.1	1.2	18.8	3.9	3.0	2.4
Fodder crops	2.1	2.5	1.9	3.8	2.2	3.2	0.7	0.8	2.2
Permanent pasture	45.2	50.5	37.3	46.9	9.6	27.5	25.6	17.0	36.8
Leys	40.0	43.7	22.2	35.6	12.0	27.7	15.3	24.5	27.4
Rough grazing	0.8	5.5	4.8	3.6	2.1	1.6	7.7	1.8	3.8
Other	2.5	1.2	2.1	1.4	2.2	6.1	0.9	7.5	2.5
Total	103.0	135.4	110.4	139.4	90.3	276.7	139.0	122.7	132.5

AVERAGE STOCKING PER FARM: S.M.D. TYPE OF FARMING GROUPS

Type/group	1	2	3	5	7	8	9	13	Whole Sample
Number of farms	22	17	76	28	6	15	14	11	193
Type of stock				Head of stock					
Dairy cows	85.6	82.4	0.2	3.8	-	-	-	28.5	19.3
Beef cows	0.6	0.6	30.2	14.2	4.3	30.1	7.4	2.5	17.3
Other cattle	117.3	164.9	114.6	104.1	100.5	91.0	96.1	99.1	117.6
Sheep: ewes	53.7	32.5	62.3	278.6	31.2	37.3	18.6	71.0	84.0
other sheep over 6 months	7.8	59.3	22.0	37.1	5.8	41.2	8.7	14.7	25.0
Pigs : sows	0.5	6.0	0.9	1.7	44.5	-	5.3	47.5	5.6
other pigs	4.5	37.6	3.8	10.6	258.3	20.0	32.1	296.8	35.7
Poultry	2.7	1.8	1.3	7.9	6000.0	-	40.7	27.3	296.8
Horses, etc.	0.4	0.1	0.6	0.1	0.7	1.1	-	-	0.4

AVERAGE OUTPUT, COSTS, MARGIN AND CAPITAL PER FARM: STANDARD MAN-DAY TYPE OF FARMING GROUPS

Type Group	1	2	3	5	7	8	9	13	Whole Sample
Number of Farms	22	17	76	28	6	15	14	11	193
OUTPUT	8286	15792	18643	14609	16184	17225	15229	10885	15534
COSTS									
Concentrates	2792	4790	5779	3416	5331	3308	4032	4683	4526
Purchased fodder	105	50	119	247	63	216	582	12	161
Fertilizer	598	990	1482	1249	999	2544	1238	797	1298
Other variable costs of fodder:									
Sprays	4	36	28	27	5	36	15	52	25
Seed	86	186	190	187	174	288	143	62	171
Contract	17	0	112	98	15	116	199	155	93
Bought grass	156	56	256	92	0	154	14	0	150
Miscellaneous	41	70	134	100	121	117	140	57	108
Total	303	348	719	503	314	711	511	326	547
Other variable costs of beef:									
Transport	108	74	187	215	117	217	163	84	163
Vet. and medicines	173	310	409	285	208	370	329	179	321
Miscellaneous	98	101	386	240	67	340	174	88	254
Total	378	485	981	740	392	927	666	351	738
Labour for beef	1132	1629	2582	1927	1459	1803	2204	1732	2033
Tractors, motor vehicles & equipment used for beef	635	611	1217	777	703	1003	970	421	920
Share of labour, tractor & machinery costs for forage production & field maint.	1039	1621	2204	1827	1751	2406	2215	1094	1889
Rental value of forage area	663	1154	2223	1988	718	2882	1609	1068	1804
General farm overheads	799	1320	1825	1531	851	2059	1661	900	1525
Total costs	8445	12998	19130	14204	12580	17860	15689	11385	15441
NET MARGIN (over above costs)	-159	2794	-487	404	3604	-635	-460	-500	94
CAPITAL									
Cattle in opening valuation	8549	19533	29019	25206	27411	29678	24664	13882	23755
Beef equipment	701	764	1593	1092	595	1779	1097	846	1226
Share of grass and forage equipment	1557	1761	2276	1918	2166	2219	1862	1343	2019
Total capital	10807	22058	32888	28216	30171	33676	27623	16071	27000
Total labour input	1408	2150	3381	2560	2057	2744	3023	2099	2696
Total tractor input	541	782	1308	772	979	1067	1157	452	992
Total machinery input	636	755	1132	868	823	1203	961	510	942
Subsidies (excl. F.S. premiums) included in output	8	93	191	80	0	73	309	0	128
PHYSICAL INPUTS AND PRODUCTION									
Labour hours to beef hrs.	708	1018	1614	1205	912	1127	1377	1083	1270
Forage area used for beef ha.	17	29	55	48	22	58	43	21	43
- of which grass area ha.	14	27	53	46	21	56	42	18	41
Livestock units of beef (average during the year)	25	59	77	69	58	72	64	39	63
Liveweight production in the year kg.	11681	19860	24708	19686	16234	17090	18399	12846	19646

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS: STANDARD MAN-DAY TYPE OF FARMING GROUPS

		1	2	3	5	7	8	9	13
Type group									
Number of farms		22	17	76	28	6	15	14	11
Average forage area for beef	ha.	16.9	28.8	54.8	47.8	22.4	58.0	42.7	20.8
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)									
Costs		£	£	£	£	£	£	£	£
Concentrates		33.7	30.3	31.0	23.4	32.9	19.2	26.5	43.0
Purchased fodder		1.3	0.3	0.6	1.7	0.4	1.3	3.8	0.1
Fertilizer		7.2	6.3	8.0	8.5	6.2	14.8	8.1	7.3
Other variable costs of forage		3.7	2.2	3.9	3.4	1.9	4.1	3.4	3.0
Other variable costs for beef		4.6	3.1	5.3	5.1	2.4	5.4	4.4	3.2
Total variable costs		50.4	42.2	48.7	42.1	43.9	44.7	46.2	56.7
Gross Margin		49.6	57.8	51.3	57.9	56.1	55.3	53.9	43.3
Labour for beef		13.7	10.3	13.8	13.2	9.0	10.5	14.5	15.9
Tr. Mv. & Equipment used for beef		7.7	3.9	6.5	5.3	4.3	5.8	6.4	3.9
Share of labour & machinery for forage & field maintenance		12.5	10.3	11.8	12.5	10.8	14.0	14.5	10.1
Rental value of forage area		8.0	7.3	11.9	13.6	4.4	16.7	10.6	9.8
General farm overheads		9.6	8.4	9.8	10.5	5.3	12.0	10.9	8.3
Total fixed costs		51.5	40.1	53.9	55.1	33.9	58.9	56.9	47.9
Total costs		101.9	82.3	102.6	97.2	77.7	103.7	103.0	104.6
Net Margin (over the above costs)		-1.9	17.7	-2.6	2.8	22.3	-3.7	-3.0	-4.6
Capital		130.4	139.7	176.4	193.1	186.4	195.5	181.4	147.6
Forage area	ha.	0.20	0.18	0.29	0.33	0.14	0.34	0.28	0.19
Labour hours	hrs.	8.5	6.4	8.7	8.2	5.6	6.5	9.0	9.9
Livestock units of beef		0.30	0.37	0.41	0.47	0.36	0.42	0.42	0.36
Liveweight production	kg.	141	126	133	135	100	99	121	118
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)									
		£	£	£	£	£	£	£	£
Output		491.4	549.0	339.9	305.8	720.9	297.0	356.6	524.4
Costs		500.8	451.9	348.8	297.3	560.4	308.0	367.4	548.5
Net Margin		-9.4	97.1	-8.9	8.5	160.5	-11.0	-10.8	-24.1
Gross Margin		243.7	317.4	174.3	176.9	404.7	164.1	192.3	227.2
Capital		640.9	766.9	599.6	590.6	1344.0	580.8	646.8	774.3
Labour hours	hrs.	42	35	29	25	41	19	32	52
Liveweight production	kg.	693	690	450	412	723	295	431	619
Grassland area to beef	ha.	0.83	0.94	0.97	0.97	0.94	0.96	0.98	0.87
Nitrogen use on grass	kg/ha.	77	88	74	46	143	136	108	112
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)									
		£	£	£	£	£	£	£	£
Output		76.7	71.6	56.7	51.8	53.6	51.1	55.1	67.7
Costs		78.1	58.9	58.2	50.3	41.7	53.0	56.8	70.8
Net Margin		-1.5	12.7	-1.5	1.4	11.9	-1.9	-1.7	-3.1
Gross Margin		38.0	41.4	29.1	30.0	30.1	28.3	29.7	29.3
Capital (composition)									
Cattle		79.1	88.6	88.2	89.3	90.9	88.1	89.3	86.4
Beef Equipment		6.5	3.5	4.8	3.9	2.0	5.3	4.0	5.3
Grass and Forage Equipment		14.4	8.0	6.9	6.8	7.2	6.6	6.7	8.4
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)									
		£	£	£	£	£	£	£	£
Output		328.4	268.5	242.2	212.4	281.5	240.1	238.8	279.1
Costs		334.7	221.0	248.6	206.5	218.8	249.0	246.0	291.9
Net Margin		-6.3	47.5	-6.3	5.9	62.7	-8.9	-7.2	-12.8
Gross Margin		162.9	155.2	124.2	122.9	158.0	132.7	128.8	120.9
Capital		428.4	375.0	427.3	410.2	524.7	469.5	433.1	412.1
Forage area to beef	ha.	0.67	0.49	0.71	0.69	0.39	0.81	0.67	0.53
Grassland area to beef	ha.	0.55	0.46	0.69	0.67	0.37	0.78	0.66	0.46
Labour hours	hrs.	28	17	21	18	16	16	22	28
Liveweight production	kg.	463	338	321	286	282	238	288	329

ANALYSIS OF CONCENTRATE FEEDING COSTS:

STANDARD MAN-DAY TYPE OF FARMING GROUPS

Group	Number of farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	22	111	32	68	37	12	49	-	1	1	26	10	58	-	2	4
2	17	81	23	77	23	17	57	-	3	-	37	9	45	-	3	7
3	76	75	17	83	49	3	30	7	8	4	56	2	26	3	4	9
5	28	50	10	90	45	5	37	-	9	5	66	1	23	-	5	4
7	6	93	19	81	70	-	22	-	9	-	86	1	11	-	3	-
8	15	46	6	94	38	-	29	-	30	3	33	-	50	2	8	7
9	14	63	19	81	28	8	40	-	23	1	77	1	14	-	4	5
13	11	120	24	76	48	7	37	1	-	8	58	2	28	2	1	8
Whole Sample	193	71	18	82	43	6	37	4	7	3	55	3	29	2	4	7

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

STANDARD MAN-DAY TYPE OF FARMING GROUPS

Type Group	1	2	3	5	7	8	9	13
Number of Farms	22	17	76	28	6	15	14	11
Average forage area for beef Ha.	16.9	28.8	54.8	47.8	22.4	58.0	42.7	20.8
	Number of head per farm							
Intake during year	45	54	87	71	64	93	73	43
Composition of cattle intake	%	%	%	%	%	%	%	%
Single suckle calves, home bred	1	1	22	17	4	31	11	4
Dairy calves retained for beef	71	82	2	3	-	-	-	27
Purchased calves 0 - 3 months	-	8	35	23	50	1	21	56
" " 3 - 12 "	3	1	16	14	43	12	22	9
Purchased stores 12 - 18 "	17	7	20	37	3	56	35	4
" " 18 - 24 "	1	-	4	6	-	1	11	-
" " over 24 "	7	2	-	1	-	-	-	-
	100	100	100	100	100	100	100	100
	Number of head per farm							
Output during year	47	47	87	78	71	90	78	45
Composition of cattle output	%	%	%	%	%	%	%	%
Fat up to 18 months	15	16	16	4	42	24	5	25
Fat 18 - 24 "	11	35	43	34	31	47	52	30
Fat over 24 "	15	17	11	25	25	16	7	25
Stores up to 12 months	22	1	12	5	-	5	4	-
" 12 - 18 "	18	11	10	11	2	6	21	14
" 18 - 24 "	13	19	7	17	-	3	7	6
" over 24 "	5	2	1	3	-	-	4	1
	100	100	100	100	100	100	100	100

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND LIVESTOCK UNITS: PREMIUM FARMS (BEST 25%) IN EACH STANDARD MAN-DAY TYPE OF FARMING GROUP

Type Group		1	2	3	5	8	9	Whole Sample
Number of farms		6	4	19	7	4	4	48
Average forage area for beef	Ha.	14.4	52.0	56.6	54.5	82.2	86.3	45.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)								
Costs		£	£	£	£	£	£	£
Concentrates		26.8	18.6	26.0	17.1	16.4	23.3	22.9
Purchased fodder		0.5	0.0	0.8	2.0	2.1	5.2	1.2
Fertilizer		4.2	5.7	7.6	4.7	12.9	5.9	6.4
Other variable costs of forage		0.9	2.1	2.8	2.1	4.7	2.9	2.5
Other variable costs for beef		3.4	2.9	4.2	2.5	4.9	3.9	3.5
Total variable costs		35.7	29.3	41.3	28.4	40.9	41.2	36.3
Gross Margin		64.3	70.7	58.6	71.6	59.1	58.8	63.6
Labour for beef		9.3	6.0	8.8	13.0	9.0	12.0	9.0
Tr. Mv. & Equipment used for beef		5.6	2.3	3.5	4.7	6.2	6.1	3.8
Share of labour & machinery for forage and field maintenance		6.6	10.8	8.4	8.7	12.2	7.3	8.5
Rental value of forage area		7.0	6.8	8.4	10.9	10.6	7.4	8.3
General farm overheads		6.9	7.2	7.0	8.4	9.2	10.0	7.2
Total fixed costs		35.4	33.0	36.1	45.7	47.3	42.7	36.7
Total costs		71.1	62.3	77.4	74.1	88.2	83.9	73.0
Net Margin (over the above costs)		28.9	37.7	22.6	25.9	11.8	16.1	27.0
Capital		98.5	143.5	151.4	157.5	182.5	141.2	146.3
Forage area	ha.	0.15	0.17	0.21	0.25	0.25	0.27	0.20
Labour hours	hrs.	5.8	3.7	5.5	8.1	5.6	7.5	5.6
Livestock units of beef		0.26	0.37	0.34	0.45	0.39	0.39	0.36
Liveweight production	kg.	133	147	128	112	84	104	119
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)								
		£	£	£	£	£	£	£
Output		669.7	599.1	466.0	402.2	396.1	363.8	494.7
Costs		476.5	373.0	360.7	297.9	349.6	305.3	361.3
Net Margin		193.3	226.1	105.3	104.3	46.5	58.4	133.4
Gross Margin		430.5	423.7	272.9	288.2	234.0	213.9	314.8
Capital		660.0	859.7	705.4	633.4	722.9	513.6	724.0
Labour hours	hrs.	39	22	26	33	22	27	28
Liveweight production	kg.	891	883	596	452	332	377	591
Grassland area to beef	ha.	0.94	0.94	0.96	0.93	0.97	1.00	0.95
Nitrogen use on grass	kg/ha.	118	80	102	39	165	71	86
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)								
		£	£	£	£	£	£	£
Output		101.5	69.7	66.1	63.5	54.8	70.8	68.3
Costs		72.2	43.4	51.1	47.0	48.4	59.4	49.9
Net Margin		29.3	26.3	14.9	16.5	6.4	11.4	18.4
Gross Margin		65.2	49.3	38.7	45.5	32.4	41.6	43.5
Capital (composition)								
Cattle		86.1	88.2	92.1	94.5	88.6	92.9	91.7
Beef Equipment		7.9	3.0	2.3	2.2	5.0	1.4	2.5
Grass and Forage Equipment		6.0	8.9	5.6	3.4	6.3	5.7	5.8
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)								
		£	£	£	£	£	£	£
Output		386.4	270.8	291.5	220.0	256.9	257.9	280.9
Costs		274.9	168.6	225.6	162.9	226.7	216.4	205.2
Net Margin		111.5	102.2	65.8	57.1	30.2	41.4	75.8
Gross Margin		248.4	191.5	170.7	157.6	151.8	151.6	178.8
Capital		380.7	388.6	441.2	346.4	468.8	364.1	411.2
Forage area to beef	ha.	0.58	0.45	0.63	0.55	0.65	0.71	0.57
Grassland area to beef	ha.	0.54	0.43	0.60	0.51	0.63	0.71	0.54
Labour hours	hrs.	22	10	16	18	14	19	16
Liveweight production	kg.	514	399	373	247	215	267	336

ANALYSIS OF CONCENTRATE FEEDING COSTS:

PREMIUM FARMS (BEST 25%) IN EACH STANDARD MAN-DAY TYPE OF FARMING GROUP

Group	Number of farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	6	103	25	75	27	20	50	1	1	1	24	19	51	1	3	2
2	4	50	23	77	28	22	49	-	-	-	43	6	41	-	-	9
3	19	75	26	74	63	2	16	1	13	5	73	3	13	-	8	3
5	7	38	4	96	-	18	59	-	23	-	75	1	10	1	12	2
8	4	42	2	98	24	-	-	-	55	21	45	-	41	-	8	6
9	4	60	10	90	6	14	75	-	2	3	77	1	10	-	4	8
Whole Sample	48	64	21	79	54	7	26	1	9	3	66	4	19	1	6	4

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL:

PREMIUM FARMS (BEST 25%) IN EACH STANDARD MAN-DAY TYPE OF FARMING GROUP

Type Group	1	2	3	5	8	9	Whole Sample
Number of farms	6	4	19	7	4	4	48
Average forage area for beef Ha.	14.4	52.0	56.6	54.5	82.2	86.3	45.0
	Number of head per farm						
Intake during year	44	107	97	98	231	120	81
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	1	2	30	36	16	17	26
Dairy calves retained for beef	68	80	6	-	-	-	19
Purchased calves 0 - 3 months	-	12	31	17	1	24	26
" " 3 - 12 "	-	1	16	10	17	16	12
Purchased stores 12 - 18 "	2	5	8	26	65	19	9
" " 18 - 24 "	4	-	9	9	1	24	6
" " over 24 "	25	-	1	2	-	-	2
	100	100	100	100	100	100	100
	Number of head per farm						
Output during year	53	84	90	104	218	137	82
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	9	31	16	13	20	17	19
Fat 18 - 24 "	15	8	48	31	62	-	32
Fat over 24 "	27	20	9	14	14	24	12
Stores up to 12 months	40	-	12	13	3	16	11
" 12 - 18 "	9	4	10	6	1	19	12
" 18 - 24 "	-	38	4	21	-	24	10
" over 24 "	1	-	2	3	-	-	4
	100	100	100	100	100	100	100

VARIABILITY OF MARGINS PER £100 OUTPUT IN EACH STANDARD MAN-DAY TYPE OF FARMING GROUP

S.M.D. type of farming group	Range in Group				Range in Premium farms (best 25% of margins)		
	Number of farms	Margin/£100 output Minimum	Maximum	Standard Error	Number of farms	Margin/£100 output Minimum	Maximum
1	22	-126.9	42.7	7.83	6	12.7	42.7
2	17	-114.3	51.7	9.03	4	26.3	51.7
3	76	-140.1	65.9	4.12	19	10.6	65.9
5	23	-60.6	42.6	5.03	7	17.0	42.6
7	6	-134.7	52.3	23.60	2	13.4	52.3
8	15	-120.1	28.5	9.05	4	4.8	28.5
9	14	-249.8	22.9	20.51	4	7.7	22.9
13	11	-141.1	42.8	14.76	3	5.5	42.8
Whole Sample	193	-249.8	65.9	3.04	48	13.7	65.9

SECTION IV

Survey results for beef enterprises grouped on the basis of their size in terms of average livestock units during 1978-79.

DISTRIBUTION OF FARMS BY SIZE OF BEEF UNIT

SIZE OF BEEF UNIT (LIVESTOCK UNITS)	UNDER 25	25 TO 49.9	50 TO 74.9	75 TO 99.9	100 TO 149.9	150 AND OVER	WHOLE SAMPLE
A. BY INTAKE GROUP (1)							
INTAKE GROUP							
1	0	8	7	5	5	7	32
2	19	8	5	4	4	1	41
4	9	18	8	10	6	1	52
6	6	4	2	3	3	1	19
7,8 & 9	8	10	7	0	6	1	32
10	2	3	4	0	0	2	11
11	4	2	0	0	0	0	6
Whole Sample	48	53	33	22	24	13	193
B. BY OUTPUT GROUP (2)							
OUTPUT GROUP							
1	3	5	2	5	3	1	19
2	13	14	15	6	6	8	62
3	11	9	7	5	8	0	40
5	6	4	2	1	2	1	16
6	8	11	1	2	2	1	25
7	6	9	6	2	3	2	28
Other	1	1	0	1	0	0	3
Whole Sample	48	53	33	22	24	13	193
C. BY STANDARD MAN-DAY TYPE OF FARMING GROUP (3)							
S.M.D. TYPE GROUP							
1	15	5	1	1	0	0	22
2	4	5	3	1	3	1	17
3	9	22	16	12	9	8	76
5	3	10	6	2	6	1	28
7	2	1	1	1	1	0	6
8	3	4	2	2	3	1	15
9	5	3	2	1	1	2	14
13	5	3	1	2	0	0	11
Other	2	0	1	0	1	0	4
Whole Sample	48	53	33	22	24	13	193

(1) See page 9

(2) See page 29

(3) See page 49

PERFORMANCE IN RELATION TO OUTPUT, LAND, CAPITAL AND BEEF LIVESTOCK UNITS BY SIZE OF BEEF UNIT

Size of beef unit - livestock units	Under 25	25 to 49.9	50 to 74.9	75 to 99.9	100 to 149.9	150 & over	Whole Sample
Number of farms	48	53	33	22	24	13	193
Average forage area to beef Ha.	13.2	27.7	40.6	57.8	76.1	135.0	43.0
PERFORMANCE IN RELATION TO OUTPUT (PER £100 OF OUTPUT)							
Costs	£	£	£	£	£	£	£
Concentrates	31.9	29.6	32.2	31.9	26.2	26.4	29.1
Purchased fodder	1.0	1.2	0.9	1.3	0.8	1.0	1.0
Fertilizer	5.9	8.0	7.3	9.6	8.5	9.2	8.4
Other variable costs of forage	2.6	3.5	2.9	2.4	4.7	4.0	3.5
Other variable costs for beef	4.8	5.2	4.7	4.8	4.0	5.2	4.8
Total variable costs	46.2	47.5	48.0	50.0	44.2	45.7	46.8
Gross Margin	53.8	52.5	52.0	49.9	55.8	54.3	53.2
Labour for beef	17.8	17.7	14.9	10.4	11.6	10.4	13.1
Tr. Mv. & Equipment used for beef	6.7	5.8	8.0	5.6	5.6	4.9	5.9
Share of labour & machinery for forage and field maintenance	13.4	16.8	11.9	12.1	11.0	9.8	12.2
Rental value of forage area	12.6	11.4	13.6	10.8	11.1	11.2	11.6
General farm overheads	11.0	11.8	10.3	8.5	9.4	9.1	9.8
Total fixed costs	61.4	63.3	58.7	47.4	48.6	45.5	52.6
Total costs	107.6	110.9	106.7	97.5	92.8	91.2	99.4
Net Margin (over the above costs)	-7.6	-10.9	-6.7	2.5	7.2	8.8	0.6
Capital	143.5	171.3	189.1	166.5	180.7	174.9	173.8
Forage area ha.	0.26	0.32	0.29	0.25	0.28	0.27	0.28
Labour hours hrs.	11.1	11.1	9.3	6.5	7.2	6.5	8.2
Livestock units of beef	0.32	0.41	0.43	0.37	0.43	0.43	0.41
Liveweight production kg.	139	138	121	108	140	118	126
PERFORMANCE IN RELATION TO LAND USE (PER HECTARE OF FORAGE)							
	£	£	£	£	£	£	£
Output	380.5	317.0	345.7	404.6	361.1	372.3	361.3
Costs	409.4	351.5	368.9	394.3	335.1	339.5	359.1
Net Margin	-28.9	-34.4	-23.2	10.3	26.0	32.8	2.2
Gross Margin	204.8	166.4	179.9	201.8	201.4	202.0	192.2
Capital	545.9	542.9	653.7	673.4	652.6	650.9	628.0
Labour hours hrs.	42	35	32	26	26	24	30
Liveweight production kg.	528	439	419	436	507	439	457
Grassland area to beef ha.	0.93	0.94	0.96	0.95	0.97	0.97	0.96
Nitrogen use on grass kg/ha.	46	55	68	107	83	107	82
PERFORMANCE IN RELATION TO CAPITAL (PER £100 OF CAPITAL)							
	£	£	£	£	£	£	£
Output	69.7	58.4	52.9	60.1	55.3	57.2	57.5
Costs	75.0	64.7	56.4	58.5	51.4	52.2	57.2
Net Margin	-5.3	-6.3	-3.6	1.5	4.0	5.0	0.3
Gross Margin	37.5	30.6	27.5	30.0	30.9	31.0	30.6
Capital (composition)							
Cattle	85.9	83.1	87.8	85.3	89.5	92.6	88.0
Beef Equipment	5.2	6.0	5.3	6.0	4.2	2.0	4.5
Grass and Forage Equipment	8.9	10.9	6.9	8.6	6.4	5.4	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PERFORMANCE IN RELATION TO BEEF LIVESTOCK (PER LIVESTOCK UNIT)							
	£	£	£	£	£	£	£
Output	317.0	244.5	231.4	266.7	231.1	234.4	245.0
Costs	341.1	271.0	247.0	259.9	214.5	213.8	243.5
Net Margin	-24.1	-26.5	-15.5	6.8	16.7	20.6	1.5
Gross Margin	170.7	128.3	120.4	133.0	128.9	127.2	130.3
Capital	454.8	418.7	437.6	443.9	417.7	409.9	425.8
Forage area to beef ha.	0.83	0.77	0.67	0.66	0.64	0.63	0.68
Grassland area to beef ha.	0.78	0.72	0.64	0.63	0.62	0.61	0.65
Labour hours hrs.	35	27	22	17	17	15	20
Liveweight production kg.	440	338	280	287	325	277	310

ANALYSIS OF CONCENTRATE FEEDING COSTS
BY SIZE OF BEEF UNIT

Size of Beef Unit Livestock Units	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Under 25	48	101	27	73	40	10	47	0	2	0	44	7	41	1	3	4
25 - 49.9	53	72	18	82	51	4	34	0	5	6	57	4	31	0	4	3
50 - 74.9	33	75	23	77	38	6	30	15	10	0	59	3	19	10	5	5
75 - 99.9	22	85	17	83	30	5	62	0	3	0	53	3	36	0	3	5
100 - 149.9	24	61	9	91	36	18	37	0	7	2	50	2	40	0	3	4
150 & over	13	62	18	82	59	2	17	0	13	8	60	1	14	0	6	19
Whole sample	193	71	18	82	43	6	37	4	7	3	55	3	29	2	4	7

COMPOSITION OF BEEF CATTLE INTAKE AND DISPOSAL BY SIZE OF BEEF UNIT

Size of beef unit - Livestock Units	Under 25	25 to 49.9	50 to 74.9	75 to 99.9	100 to 149.9	150 & over	Whole Sample
Number of farms	48	53	33	22	24	13	193
Average forage area for beef Ha.	13.2	27.7	40.6	57.8	76.1	135.0	43.0
	Number of head per farm						
Intake during year	25	46	71	88	154	185	73
Composition of cattle intake	%	%	%	%	%	%	%
Single suckle calves, home bred	3	11	14	19	12	40	17
Dairy calves retained for beef	40	14	10	14	42	7	13
Purchased calves 0 - 3 months	18	26	24	51	22	22	26
" " 3 - 12 "	13	16	17	14	6	11	14
Purchased stores 12 - 18 "	17	27	27	1	6	13	25
" " 18 - 24 "	3	5	8	-	9	7	4
" " over 24 "	6	1	-	-	4	-	1
	100	100	100	100	100	100	100
	Number of head per farm						
Output during year	26	54	74	85	153	164	74
Composition of cattle output	%	%	%	%	%	%	%
Fat up to 18 months	12	10	13	28	12	18	15
Fat 18 - 24 months	25	25	45	25	42	64	39
Fat over 24 "	21	15	16	13	22	2	15
Stores up to 12 months	16	18	4	3	6	8	9
" 12 - 18 "	16	17	8	19	6	6	11
" 18 - 24 "	4	11	14	11	9	2	9
" over 24 "	6	3	-	1	4	1	2
	100	100	100	100	100	100	100

ANALYSIS OF CONCENTRATE FEEDING COSTS
BY SIZE OF BEEF UNIT

Size of Beef Unit Livestock Units	Number of Farms	Annual concentrate feed cost per livestock unit and its seasonal distribution			Percentage composition of summer concentrate feed costs						Percentage composition of winter concentrate feed costs					
		£/LU	Summer	Winter	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other	Cereals	Milk & Milk Subs.	Compound	Straight	Minerals & Additives	Other
		£	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Under 25	48	101	27	73	40	10	47	0	2	0	44	7	41	1	3	4
25 - 49.9	53	72	18	82	51	4	34	0	5	6	57	4	31	0	4	3
50 - 74.9	33	75	23	77	38	6	30	15	10	0	59	3	19	10	5	5
75 - 99.9	22	85	17	83	30	5	62	0	3	0	53	3	36	0	3	5
100 - 149.9	24	61	9	91	36	18	37	0	7	2	50	2	40	0	3	4
150 & over	13	62	18	82	59	2	17	0	13	8	60	1	14	0	6	19
Whole sample	193	71	18	82	43	6	37	4	7	3	55	3	29	2	4	7

APPENDICES

APPENDIX I

Definitions of terms and conventions used in calculating the performance tables

Output

Sales net of commission, tolls, levies, etc. adjusted by the difference between the opening and closing cattle valuations and less any cattle purchases. Fatstock premiums and any grants or subsidies received for beef cattle are included.

Variable Costs

Actual use and cost of purchased materials and services was recorded.

Concentrates include home grown grain charged at market values.

Purchased fodder includes home produced stockfeed potatoes charged at market price.

Fertilisers include an allowance for periodic applications of lime and slag.

Miscellaneous costs of forage include such items as hay and silage additives and an allowance for baling twine.

Miscellaneous costs of beef cattle includes purchased straw for litter, water charges, cattle insurances, A.I. and service fees, specific building rental payments etc.

Labour

The hours recorded for attending beef cattle have been charged at a standard rate of £1.60 per hour.

Tractors, motor vehicles, machinery and equipment.

The following standard charges have been used to value the use recorded:

Tractors, up to 40 h.p.	£1.36 per hour
over 40 and up to 55 h.p.	£1.60 " "
" 55 " " " 70 h.p.	£2.01 " "
" 70 " " " 100 h.p.	£2.88 " "
" 100 h.p.	£3.65 " "
Cars	15p per mile
Landrovers	25p per mile

Repairs and depreciation of machinery and equipment at rates derived from the Farm Management Survey varying between 26% and 28% of present value, depending on the standard man-day type of farming class of each farm.

Share of labour, tractor and machinery costs for forage production.

Labour and tractor costs have been charged at standard rates per hectare of grazing or "roots" and per tonne of hay and silage consumed.

Machinery and equipment has been valued as below (Capital) and the charge for its depreciation and repairs shared in proportion to its use for fodder consumed by the beef cattle related to total annual use.

Capital

The opening inventory of cattle has been valued at market values at 1st April 1978.

Machinery and equipment values have been based on current (1978) prices written down according to the age of each machine.

The share of grass and forage equipment attributed to the beef enterprise has been calculated as a proportion of its use for beef cattle forage to its total annual use.

General Farm Overheads

Fifteen per cent of the total labour input plus a charge per hectare of forage devoted to beef cattle. The latter charge has been derived from the Farm Management Survey and varied with the standard man-day type of farming class of each farm between £24 per hectare and £35 per hectare.

Premium Farms

The criterion used to determine the "best 25%"has been the net margin per £100 of output.

APPENDIX II

Counties covered in the survey by each University Centre

UNIVERSITY COLLEGE OF WALES (ABERYSTWYTH)
- All counties in Wales

ASKHAM BRYAN COLLEGE OF AGRICULTURE
- Cleveland
- North Yorkshire
- West Yorkshire
- South Yorkshire
- Humberside

CAMBRIDGE UNIVERSITY
- Bedford
- Cambridge
- Essex
- Hertford
- Greater London (E)
- Lincoln (part)
- Norfolk
- Suffolk

EXETER UNIVERSITY
- Cornwall and Scilly Isles
- Devon
- Dorset
- Somerset

NEWCASTLE UNIVERSITY
- Cumbria
- Tyne & Wear
- Durham
- Northumberland

NOTTINGHAM UNIVERSITY
- Derby
- Leicester
- Lincoln (part)
- Nottingham
- Northampton

MANCHESTER UNIVERSITY
- Cheshire
- Lancashire
- Merseyside
- Salop
- Stafford
- Greater Manchester

READING UNIVERSITY
- Avon
- Berkshire
- Buckingham
- Gloucester
- Hampshire
- Isle of Wight
- Wiltshire
- West Midlands
- Oxford
- Warwick
- Hereford & Worcester
- Greater London (SE)

WYE COLLEGE (LONDON UNIVERSITY)
- Kent
- Surrey
- Sussex East
- Sussex West

APPENDIX III

A Structure survey of Beef Production in England and Wales 1977

This survey took the form of single visit interviews with a randomly selected sample of beef producers during the early months of 1977. It had three main objectives:

(1) To throw some light on the recording difficulties likely to be encountered when conducting a full economic study of beef production on a randomly selected sample of farms and in this respect acted as a pilot to the 1978-9 study.

(2) To gather information on the structure of the beef industry.

(3) To attempt to devise a method of classifying or grouping beef producing enterprises so that the results of a subsequent economic study can be presented in a meaningful way.

An attempt is made here to present, as simply as possible, and without attempting to draw conclusions, some of the salient results of these objectives.

Section I simply describes the geographical location of the sample farms.

Section II describes the structure of production on the 166 farms in terms of the number and ages of animals moving into and out of their beef enterprises.

Section III serves to indicate the complex variety of beef production systems which were operated on this sample of farms. The difficulties of classification and grouping are emphasised when it is remembered that more than one 'system' may be operated on a particular farm. The rapidity with which 'systems' can be varied to suit changing circumstances is indicated by Table 5 in this section.

The next two sections present the results of an attempt to group the 166 beef enterprises on either (a) their main type of cattle intake (Section IV) or (b) their main type of disposal (Section V). The number of farms on which cattle intake or disposal was confined to one age group only is also shown in the respective sections.

Finally, as part of objective (1), information was gathered on the levels of concentrate feeding to beef cattle. The results are summarised in Section VI in terms of quantities fed, for most of the type-groups identified in Sections IV and V.

A fuller report on this survey and, separately, of concentrate feeding, has already been given limited circulation and is available on request from the Department of Agricultural Economics and Management, University of Reading.

SECTION I: GEOGRAPHICAL DISTRIBUTION

Table 1

Regional Location of 166 Farms

Region	Number of Farms	%
Eastern	19	11.4
South East	24	14.5
East Midlands	19	11.4
West Midlands	11	6.6
South West	46	27.7
Northern	26	15.7
Yorks/Lancs	1	0.6
Wales	20	12.1
Total	166	100.0

Eastern Region:

Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Lincolnshire (Holland), Greater London, Norfolk and Suffolk.

South Eastern Region:

Berkshire, Buckinghamshire, Hampshire, Isle of Wight, Kent, Oxfordshire, Surrey, East and West Sussex.

East Midland Region:

Derbyshire, Leicestershire, Lincolnshire (Kesteven and Lindsey), Northamptonshire and Nottinghamshire.

West Midland Region:

Cheshire, Hereford and Worcester, Salop, Staffordshire, Warwickshire and West Midlands.

South Western Region:

Cornwall, Devon, Dorset, Gloucestershire, Avon, Somerset, Isles of Scilly and Wiltshire.

Northern Region:

Cleveland, Cumbria, Durham, Tyne and Wear, Northumberland and North Yorkshire (part)

Yorks/Lancs Region:

Lancashire, Merseyside, Greater Manchester, South Yorkshire, West Yorkshire and Humberside.

Wales:

All counties.

SECTION II: STRUCTURE OF CATTLE INTAKE AND DISPOSALS

Table 2

Composition of beef cattle intake during 1976 on the 166 farms in the survey

Age (mths)	Number	Percentage
up to 3*	8761	86.1 (1)
Over 3 and up to 6	54	0.5
Over 6 and up to 9	116	1.0
Over 9 and up to 12	758	7.5
Over 12 and up to 15	150	1.5
Over 15 and up to 18	220	2.1
Over 18 and up to 21	15	0.2
Over 21 and up to 24	58	0.6
Over 24	47	0.5
Total	10179	100.0

* Including calves born on the farms and reared for beef.

The above table shows the number and ages of beef cattle coming on to the farms in the survey. Also, the percentage distribution according to age. The high proportion of cattle intake in the 'under three months' group may not be typical of the beef industry as a whole. The sample was drawn from farms on which there were male cattle under one year old in June 1976, so that farms finishing older cattle, i.e. store buying farms may be under represented.(1)

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(1) This compares with 56% in the 1978-9 Survey for which the sample was drawn from farms having male cattle under two years old.

Table 3

Composition of cattle disposals from the 166 farms in the survey during 1976

Type / Age (mths)	Store		Fat		Breeding		Total	
	No.	%	No.	%	No.	%	No.	%
up to 3	50	2	-	-	-	-	50	1
over 3 and up to 6	511	16	-	-	-	-	511	5
over 6 and up to 9	228	7	-	-	-	-	228	2
over 9 and up to 12	733	22	246	4	-	-	979	10
over 12 and up to 15	366	11	328	5	29	11	723	7
over 15 and up to 18	697	21	2169	35	13	5	2879	30
over 18 and up to 21	256	8	697	11	23	9	976	10
over 21 and up to 24	280	9	1819	29	57	22	2156	22
over 24	138	4	987	16	137	53	1262	13
Total	3259	100	6246	100	259	100	9764	100

The difference in the total intake and total disposal figure of cattle, is due to change in the size of the beef enterprise and to deaths during the year.

Total disposals were:	%
as stores	33
fat	64
for breeding	3
	100

SECTION III: SYSTEMS OF BEEF PRODUCTION

Table 4

The systems of beef production which farmers in the survey said they were following

Type of Intake	Number of farms
Single suckle herd	34
Double suckle herd	8
Multiple suckle calf rearing	19
Bucket rears all own dairy calves	34
Bucket rears surplus/a few own dairy calves	9
Bucket rears purchased calves	43
Buys weaned calves	7
Buys stores	13
Other	3
Type of output	
Selling stores:	
under 12 months	2
12 to 15 months	8
15 to 18 months	8
over 18 months	14
age not specified	23
Selling fat cattle:	
12 to 18 months	16
18 to 24 months	11
over 24 months	18
age not specified	56
Other	6
No definite system/in transition	11

Notes:

(1) The intake and output system was recorded separately for most farms.

(2) Many farms indicated more than one intake or output system.

Table 5

Reasons given for not adhering to a definite beef production system

	Number of times recorded
Stage at sale depends on forage stocks and/or market prices	12
System varied in response to the market price situation	11
Farmer was changing his beef system	7
May sell as stores instead of fat	7
Numbers and/or types purchased is varied with the price of store cattle/calves	7
Transitional system while establishing on a new farm	4
Farmer was discontinuing beef production altogether	4
May sell dairy calves instead of rearing, if calf prices are good	3
May rear or sell for breeding	2
Numbers depend on number of bull calves from dairy herd	2
Beef is a sideline (dabbles in it)	2
Transitional system while going brucellosis free	1
Total	62

(on 56 farms)

SECTION IV: CLASSIFICATION BASED ON BEEF CATTLE INTAKE

Table 6

Sample distribution by main type of intake in 1976

Type of Intake	Number of farms
Over 50% as calves 3 months old or less, of which 50% were:	
Home bred single suckled	38
Home bred dairy calves	41
Home bred dairy and single suckled	2
Purchased	71
Total	152
Over 50% as stores	
Over 3 and up to 12 months	7
Over 12 and up to 18 months	1
Over 18 and up to 24 months	1
Over 24 months	-
Mixed ages, no age groups and accounting for 50% of cattle intake	3
Nil intake during 1976	2
Total Sample	166

A number of farms did not confine their intake of beef cattle exclusively to one particular age group so a fairly broad classification based on the main type of intake was adopted. This is shown in Table 6 above. The number of farms which did confine their beef cattle intake to one are group is shown in Table 7 below.

Table 7

Number of farms having a single type of intake and "mixed" intake in 1976

Type of Intake	Number of farms
Wholly calves 3 months old or less:	
All home bred single suckled	13
All home bred dairy calves	33
Mixed home bred and purchased	83
Total	129
Wholly stores over 3 months and under 12 months	3
Mixed ages	32
Nil intake during 1976	2
Total Sample	166

SECTION V: CLASSIFICATION BASED ON DISPOSALS

Table 8

Sample distribution by main type of disposal in 1976

Type of Output	Number of Farms
Over 50% as stores of which 50% or more were:	
up to 12 months	23
over 12 and up to 18 months	23
over 18 and up to 24 months	10
over 24 months	4
mixed ages	1
Total selling mainly store cattle	61
50% or more as fat cattle of which 50% or more were:	
up to 18 months	36
over 18 and up to 24 months	35
over 24 months	27
Total selling mainly fat cattle	98
Nil sales in 1976	7
Total sample	166

The ages at which cattle disposals took place varied widely on many farms. A broad classification based on the main age of disposal is shown in table 8 above.

The number of farms on which cattle disposals were restricted to particular ages is shown in table 9.

Table 9

Number of farms having a single type of disposal and "mixed" disposal in 1976

Type of Output	Number of Farms
Wholly as stores:	
up to 12 months	10
over 12 and up to 18 months	9
over 18 and up to 24 months	1
over 24 months	2
mixed ages	10
Total selling store cattle	32
Wholly as fat cattle:	
up to 18 months	17
over 18 and up to 24 months	12
over 24 months	15
mixed ages	20
Total selling fat cattle	96
Mixed store and fat cattle	63
Nil sales in 1976	7
Total Sample	166

SECTION VI: LEVELS OF CONCENTRATE FEEDING TO BEEF CATTLE

Notes on Tables 10 and 11

1. The number of farms may not add to the sub total or sample total because averages are shown for sub-groups of three or more farms only.
2. The quantities of concentrates shown have been rounded to whole kilograms and may therefore not cross add to the total concentrate figures.
3. Quantities per head have been calculated from the total annual quantities fed on all farms in each group and the total average number of animals on the farms in that group i.e. all animals carry equal weight.

TABLE 10

Concentrate feed to beef cattle in twelve months

Average per animal by Type of Intake Group

Type of Intake	Number of Farms	Cattle 3 months & under 12 months				Cattle 12 months & under 2 years			
		Av. No. of animals	Cereals	Other concentrates	Total concentrates	Av. No. of animals	Cereals	Other concentrates	Total concentrates
			Kg per head				Kg per head		
I 50% or more as calves 3 months old or less of which 50% or more were:									
H.B. single suckle	38	1547	158	73	231	1259	384	110	494
H.B. Dairy	45	982	307	126	433	863	413	86	499
Purchased	73	3582	417	152	569	3110	497	110	608
Total mainly calf rearers	158	6295	326	129	455	5400	437	104	541
II 50% or more as stores:									
over 3 months & up to 12 months	7	266	312	61	373	708	1202	78	1280
mixed ages	3	112	263	21	285	163	256	51	307
Total mainly store buyers	12	418	298	50	349	937	976	73	1049
Total sample	172	6716	325	124	449	6353	516	99	615

TABLE 11

Concentrate feed to beef cattle in twelve months

Average per animal by Type of Disposal Groups

Type of Disposal	Number of Farms	Cattle 3 months & under 12 months				Cattle 12 months & under 2 years			
		Av. No. of animals	Cereals	Other concentrates	Total concentrates	Av. No. of animals	Cereals	Other concentrates	Total concentrates
			Kg per head				Kg per head		
I Over 50% as store cattle of which 50% or more were:									
up to 12 months old	24	1066	204	140	345	660	171	130	300
over 12 and up to 18 months	25	745	240	135	375	603	308	88	395
over 18 and up to 24 months	11	229	420	130	550	260	712	127	839
over 24 months	4	107	186	186	373	55	172	192	364
Total mainly store cattle producers	65	2161	237	140	377	1581	311	118	429
II 50% or more as fat cattle of which 50% or more were:									
up to 18 months old	36	1623	471	160	631	1446	1036	126	1162
over 18 and up to 24 months	36	2097	307	90	397	2226	366	71	437
over 24 months	27	688	333	105	438	1040	422	91	513
Total mainly fat cattle producers	99	4408	371	118	489	4712	584	92	676
Unclassified (nil sales in year)	8	147	207	77	284	59	548	151	699
Total sample	172	6716	325	124	449	6353	516	99	615

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