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Farm business analysis

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UNIVERSITY OF EXETER

Department of Agricultural Economics

CAPITAL INVESTMENT IN FIXED EQUIPMENT AND MACHINERY ON A SAMPLE OF FARMS IN SOUTH WEST ENGLAND, 1964-65

by

G. D. D. DAVIES

and

W. J. DUNFORD

Report No. 161

U N I V E R S I T Y O F E X E T E R

Department of Agricultural Economics

Capital Investment in Fixed Equipment and Machinery on a Sample of Farms in South West England, 1964 - 65.

by

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I

INTRODUCTION

This short report is based on investment data collected in conjunction with the Farm Management Survey for the 1964 crop year and relates to 233 farms located in Dorset, Devon and Cornwall. These three counties together comprise the South Western Province of the Provincial Agricultural Economics Service.

The first part of the report analyses data already made available to the Ministry of Agriculture, Fisheries and Food as part of its Survey of Investment in Land, Buildings and Works. First undertaken in respect of the national Farm Management Survey sample for the 1961 crop year, this Survey of Investment was repeated for the 1962 crop year and, again, after an interval of a year, for 1964. However, a Departmental survey of investment on similar lines to the Ministry Survey was conducted on the South Western F.M.S. sample for the intervening year (1963) and also for the 1965 crop year so that data relating to investment in fixed equipment on farms in the South West will eventually be available for a period of five consecutive years.

Data for the three years 1961, 1962 and 1963 have already appeared in earlier reports published by this Department[1][2] and it is intended, after the data for 1965 has been collated, that a report should be prepared which reviews in detail the results obtained over the five-year period. Meanwhile, the results of the 1964 survey in the South West are set down in this report for the benefit of those who may be interested in obtaining new investment data as these become available. On this occasion, however, the data relating to investment in fixed equipment have been augmented by data concerning investment in machinery which have also been collected in conjunction with the Farm Management Survey. This additional information is set out in the latter part of the report.

The manner of presenting data relating to investment in fixed equipment, which was adopted in publishing the results of the earlier surveys, has been largely preserved in the presentation in this report of the 1964 results and also extended to the supplementary data relating to machinery investment. Thus, both fixed equipment and machinery data are presented for each of eight main type of farming groups within the South Western F.M.S. sample, for seven acreage size groups, for four tenancy groups and six income groups. The first two of these four bases of classification - by type of farming and by size of farm - are identical to the two main bases of classification employed

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(1) W.J. Dunford and G.D.D. Davies, Fixed Capital Investment on a Sample of Farms in South West England, 1961, Report No. 146, University of Exeter, Department of Agricultural Economics.

(2) S.T. Morris, H.W.B. Luxton, G.D.D. Davies and W.J. Dunford, Farm Organisation and Incomes in South West England, 1963-64, Report No. 153, University of Exeter, Department of Agricultural Economics.

in the Department's report based on income data derived from the South Western F.M.S. sample for 1964[1], thus making it possible to regard the present report as a supplement to the farm incomes report.

Both the data relating to fixed equipment and to machinery have been expressed in net as well as in gross terms; investment in fixed equipment is shown both gross and net of capital grants and investment in machinery shown gross and net of credits from the sale of items of plant and machinery.

One departure from earlier practice will be found in the use of the terms "gross capital expenditure" and "net capital expenditure" in preference to "gross investment" and "net investment". This course has been followed to enable the same term - capital expenditure - to be employed both in the case of investment in fixed equipment and of investment in machinery. "Net capital expenditure on machinery" is, therefore, used to denote total machinery purchases <u>less</u> sales of machinery, whether by way of straight sale, trade-in allowances or scrap values, and the term "net investment" reserved for the residual of gross capital expenditure on machinery <u>less</u> sales and annual depreciation on all machinery.

The sample of 233 farms comprised some 40,500 acres of farmland of which 57 per cent was in tenant occupation and 43 per cent in owner-occupation. Ninety six farms consisted entirely of rented land and 70 entirely of owner-occupied land. In addition, there were 33 farms whose occupants rented more than 50 per cent of the farm acreage and 34 with occupants owning more than 50 per cent. These two groups were classified, therefore, as "Mainly Tenant" and "Mainly Owner-Occupier" respectively.

The farms from which the data presented in this report were derived ranged in size from 27½ acres to 955 acres, the average size of the whole sample being 173¾. The average size of the 123 investing farms did not, at 181 acres, differ significantly from the "all farms" average.

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(1) S.T. Morris, H.W.B. Luxton and G.D.D. Davies, Farm Organisation and Incomes in South West England, 1964-65, Report No. 157, University of Exeter, Department of Agricultural Economics.

II

INVESTMENT IN FIXED EQUIPMENT

Data collected in the course of the 1964 Departmental survey of investment in land, buildings and works revealed that for the fourth consecutive year, just over 50 per cent of the farms in the South Western F.M.S. sample had undertaken investment and that the average gross capital expenditure per farm over the entire sample fell between £400 and £500. The actual levels of investment for all farms in 1964 were £425 per farm, and £2. 10s. 0d. per acre, which indicate a slight decline in investment compared with the preceding three years. With investing farms forming just over half the number of farms in the sample, gross capital expenditure per farm and per acre on investing farms only was much higher amounting to £805 and £4. 8s. 0d. respectively. The level of grant-aid, following the trend in gross capital expenditure, was slightly less than in preceding years at 10/0d. per acre for the whole sample and 16/0d. per acre for investing farms. Thus net capital expenditure for all farms was £2. 0s. 0d. per acre and, for investing farms, £3. 12s. 0d. per acre.

Tab.1

When the sample of 233 farms is divided, for the purposes of analysis, into various sub-groupings, considerable variation is encountered in the level of investment undertaken. Inevitably, this must in part stem from the smaller number of farms on which the results are based, particularly in the case of the results relating to investing farms only. Nevertheless, in many instances, the nature of the variation is still such as to infer the association of certain factors and, where this variation is consistent with the findings of earlier surveys, to encourage the drawing of certain broad conclusions.

When analysed by type of farming the highest levels of investment - measured in "per acre" terms for the investing farms only - tend to be found in those groups characterised by the importance of the dairy enterprise and by a consequent emphasis on expensive buildings. Gross capital expenditure on investing farms in these groups varied between £4 and £7 per acre, while comparable expenditure in the three most extensive farming type groups - the Devon and Cornwall Mixed with Crops group and the two Cattle and Sheep groups - in each case amounted to less than £4 per acre. The lowest rate of investment, which occurred in the Upland Cattle and Sheep group, was, in fact, as little as 10/0d. per acre.

Tab.2

Broadly the results for 1964, when analysed according to size of farm, reproduce the pattern revealed by the earliest years of the investment survey but absent from the 1963 results. Both gross and net capital expenditure per acre on the investing farms tended, in 1964, to decline with increasing size of farm until the group of largest farms is reached. In the latter,

Tab.3

investment is of such a magnitude, as the per farm figures show, as to offset the effect of acreage and produce a level of capital investment per acre comparable to that of much smaller farms. For the second year running, however, an important contributing factor to the level of investment achieved by the group of largest farms was the large sums expended, in a few cases, on farm dwellings. The nature of this expenditure also largely explains the reduced level of dependence on grant-aid apparent in the data derived for this group of farms as such expenditure is ineligible for Exchequer grants (unless incurred as an upland farm qualifying for a Livestock Rearing grant, which certainly did not apply to the group of farms in question) and only eligible for Local Authority grants, in approved cases, up to a maximum of £400.

Two factors may be of importance in explaining the variation which is seen to occur in the level of fixed investment per acre as the average size of farm increases.(1) First, it would seem reasonable to suppose, particularly in respect of the lower ranges of farm size where livestock enterprises tend to predominate, that the demand for the construction and maintenance of farm buildings does not increase proportionately with increasing acreage. Second, to the extent that larger farms are associated with higher incomes, it is also reasonable to anticipate that, with increasing farm size, a larger proportion of total income will become available for investment - and, progressively, for less essential investment - after consumption requirements have been met. It is possible, therefore, in very general terms, to view the entire range of farm size as consisting of an area towards the lower end of that range where the first of these two factors predominates, a second intermediate area where the second factor increasingly superimposes itself on the first, and a third area towards the top of the range where the second factor totally obscures the first. However, confirmation of this explanation, which is only tentatively advanced, must await more specific investigation of farmers' expenditure priorities.

For the third consecutive year the level of gross capital expenditure per acre was rather less on investing farms which were wholly tenanted than on wholly owner-occupied farms amounting to £3. 18s. 0d. per acre on the former and £4. 10s. 0d. on the latter. Again, however, the difference was less marked in terms of net capital expenditure per acre (£3. 4s. 0d. for the tenants and £3. 8s. 0d. for owner-occupiers) as a result of the higher proportion of total expenditure met in the form of grants on the owner-occupied farms.

Tab.4

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(1) A similar pattern is found in connection with the level of machinery and equipment investment per acre, as will be seen in a later section of this report.

The relationship between the level of investment and the level of farm income is perhaps more usefully explored initially by reference to the results measured on a "per farm" basis and these reveal a general tendency for capital expenditure on the investing farms to increase as the level of gross farm income rises. Gross capital expenditure per farm thus ranged from just over £300 in the case of farms with the lowest incomes to £1900 for those with the highest while net capital expenditure per farm ranged from £225 to just over £1800. However, the nature of individual farm results clearly indicates the presence of factors other than income which are capable of disturbing the general tendency and points to the danger of drawing over-simplified conclusions in what is obviously a complex area of farm decision-making. Nevertheless, the levels of capital expenditure per acre achieved by the highest income groups - particularly when these are expressed in net terms - would seem to lend support to the contentions made above concerning the importance of the income effect in maintaining the rate of investment per acre on larger farms.

Tab.5

Buildings accounted for the largest share of investment expenditure with just over 50 per cent of both gross and net expenditure being directed to this sector. Expenditure on farm dwellings (including both farmhouses and farm cottages) was next in importance claiming a slightly larger share of net expenditure than of gross expenditure (26 per cent compared with 22 per cent) as a result of the limited grant facilities available for investment of this kind. Land improvement and services attracted the smallest shares of gross capital expenditure, claiming 14 per cent and 10 per cent respectively.

Tab.6

The sector assisted most by grant-aid was land where 32 per cent of gross capital expenditure was met in this way. This figure may be compared with 24 per cent in the case of services and 19 per cent for buildings. The contribution of grants was least in the case of farm dwellings but, as has been noted, the attendant circumstances are rather different. The variation which occurs in the level of grant-aid received by the different investment sectors can be attributed both to the variation in the proportion of total investment which is grant-aided and to variation in the rates of grants which are claimed. An assessment of the relative importance of these two factors, however, requires a more detailed analysis of the data than is presented here.

The analysis of the investment data according to the tenure status of the sample farms, to which reference has already been made, poses difficulties of interpretation in the case of the groups comprised of mixed tenancy farms - the "Mainly Tenant" group and the "Mainly Owner-occupier" group. Yet both these groups represent substantial investment in tenanted land and in owner-occupied land and in order to more usefully accommodate the data derived for the farms included in these groups, analysis has been undertaken which examines

the level of capital expenditure on rented land and on owner-occupied land respectively, unrelated to the tenure composition of the individual farms in the sample.

Investment was directed to some 55 per cent of the total farm acreage represented by the sample of 233 farms and the total acreage attracting investment was equally divided into rented land and owner-occupied land. Some 49 per cent of rented land in the sample, therefore, attracted investment compared with 64 per cent of the owner-occupied land.

Tab.7

Although the acreages of rented and owner-occupied land to which investment was directed were approximately equal, some 58 per cent of the total volume of investment is seen to have been undertaken by farmers who were owner-occupiers and only 42 per cent by landlords and/or tenants. The separate contributions to total investment by the two parties on tenanted farms were 10 per cent by landlords and 32 per cent by tenants. Moreover, the relative contributions to net capital expenditure by landlords, tenants and owner-occupiers were not significantly different from their contributions to gross capital expenditure. However, a much higher proportion of gross capital expenditure was met by way of grants in the case of landlord's investment than in the case of either tenant's or owner-occupier's investment.

Tab.8

The results obtained for rented land - with gross expenditure by landlords and tenants combined amounting to £3. 14s. 0d. per acre and net expenditure to £3. 0s. 0d. per acre - are not greatly dissimilar from the comparable results derived for the "Wholly Tenant" group of farms; but the results for owner-occupied land, with gross and net expenditure per acre at £5. 4s. 0d. and £4. 4s. 0d. respectively, are somewhat above the figures obtained for the "Wholly Owner-occupier" group of farms.

Tab.9

Table 1.

Proportion of Farms Investing and Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment.

1961 to 1964

	Farms in Sample			Gross Capital Expenditure				Grant-aid				Net Capital Expenditure			
	Total	Investing farms		Per farm		Per acre		Per farm		Per acre		Per farm		Per acre	
	No.	No.	As % of total no.	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
				£	£	£	£	£	£	£	£	£	£	£	£
1961	240	133	55·4	456	823	2·8	4·5	105	190	0·6	1·0	351	633	2·2	3·5
1962	226	124	54·9	446	813	2·8	4·8	95	173	0·6	1·0	351	640	2·2	3·8
1963	240	121	50·4	459	911	2·7	4·7	100	199	0·6	1·0	359	712	2·1	3·7
1964	233	123	52·8	425	805	2·5	4·4	79	150	0·5	0·8	346	655	2·0	3·6

Note: Columns headed (a) are based on all farms.
Columns headed (b) are based on investing farms only.

Table 2. **Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment**

By Type of Farming

1964

Type of Farming	Farms in Sample			Av. Size of Farms		Gross Capital Expenditure				Grant-aid					Net Capital Expenditure			
	Total	Investing farms		All farms	Investing farms	Per farm		Per acre		Per farm		Per acre		As % of G.C. Exp.	Per farm		Per acre	
	No.	No.	As % of total no			(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)		(a)	(b)	(a)	(b)
				acs.	acs.	£	£	£	£	£	£	£	£		£	£	£	£
Dorset Dairy	37	17	45·9	150¾	118¼	334	727	2·2	6·1	67	146	0·4	1·2	20·1	267	581	1·8	4·9
East Devon Dairy	31	17	54·8	103¾	96¼	266	486	2·5	5·0	36	66	0·3	0·7	13·5	230	420	2·2	4·3
D & C Dairy & Mixed	50	28	56·0	130	144¾	320	572	2·5	4·0	70	124	0·6	0·9	21·9	250	448	1·9	3·1
D & C Mixed Livestock	32	19	59·4	154¾	144½	383	645	2·5	4·5	95	160	0·6	1·1	24·8	288	485	1·9	3·4
D & C Mixed with Crops	22	8	36·4	226	246½	225	620	1·0	2·5	50	137	0·2	0·6	22·2	175	483	0·8	1·9
D & C Cattle & Sheep:																		
(a) Lowland	18	11	61·1	176½	174¾	368	603	2·1	3·4	84	138	0·5	0·8	22·8	284	465	1·6	2·6
(b) Upland	10	3	30·0	239½	377½	62	205	0·3	0·5	15	48	0·1	0·1	24·2	47	157	0·2	0·4
Dorset Dairy & Arable	16	10	62·5	491½	554½	1819	2911	3·7	5·2	219	351	0·4	0·6	12·0	1600	2560	3·3	4·6
Cornwall Dairy & Pigs	17	10	58·8	107½	125¼	518	880	4·8	7·0	122	207	1·1	1·6	23·6	396	673	3·7	5·4
All Farms	233	123	52·8	173¾	181	425	805	2·5	4·4	79	150	0·5	0·8	18·6	346	655	2·0	3·6

Note: Columns headed (a) are based on all farms.

Columns headed (b) are based on investing farms only.

Table 3.

Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment

By Size of Farm

1964

Size of Farm	Farms in Sample			Av. Size of Farms		Gross Capital Expenditure				Grant-aid					Net Capital Expenditure			
	Total	Investing farms		All farms	Investing farms	Per farm		Per acre		Per farm		Per acre		As % of G.C. Exp.	Per farm		Per acre	
	No.	No.	As % of total no.			(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)		(a)	(b)	(a)	(b)
				acs.	acs.	£	£	£	£	£	£	£	£		£	£	£	£
20 and under 50 acs.	17	7	41·2	39	38¾	220	533	5·6	13·8	48	117	1·2	3·0	21·8	172	416	4·4	10·8
50 " " 100 "	61	29	47·5	71¼	68¾	197	415	2·8	6·0	45	95	0·6	1·4	22·8	152	320	2·2	4·6
100 " " 150 "	48	24	50·0	124½	114½	242	483	1·9	4·2	42	83	0·3	0·7	17·4	200	400	1·6	3·5
150 " " 200 "	34	17	50·0	171¾	155	503	1006	2·9	6·5	130	259	0·7	1·7	25·8	373	747	2·2	4·8
200 " " 300 "	44	25	56·8	238½	219	458	806	1·9	3·7	84	148	0·3	0·7	18·3	374	658	1·6	3·0
300 " " 500 "	19	13	68·4	369¾	322¾	828	1210	2·2	3·7	153	224	0·4	0·7	18·5	675	986	1·8	3·0
500 acres and over	10	8	80·0	615¾	616¾	1862	2328	3·0	3·8	186	233	0·3	0·4	10·0	1676	2095	2·7	3·4
All Farms	233	123	52·8	173¾	181	425	805	2·5	4·4	79	150	0·5	0·8	18·6	346	655	2·0	3·6

Note: Columns headed (a) are based on all farms.

Columns headed (b) are based on investing farms only.

Table 4.

Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment

By Tenure Status

1964

Tenure Status	Farms in Sample			Av. Size of Farms		Gross Capital Expenditure				Grant-aid					Net Capital Expenditure			
	Total No.	Investing farms		All farms	Investing farms	Per farm		Per acre		Per farm		Per acre		As % of G.C. Exp.	Per farm		Per acre	
		No.	As % of total no.			(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)		(a)	(b)	(a)	(b)
				acs.	acs.	£	£	£	£	£	£	£	£		£	£	£	£
Wholly Tenant	96	39	40·6	178½	210½	338	832	1·9	3·9	59	145	0·3	0·7	17·5	279	687	1·6	3·2
Mainly Tenant[1]	33	20	60·6	182¼	159½	304	502	1·7	3·1	52	85	0·3	0·5	17·1	252	417	1·4	2·6
Wholly Owner-occupier	70	41	58·6	146¼	150	391	668	2·7	4·5	92	158	0·6	1·1	23·5	299	510	2·1	3·4
Mainly Owner-occupier[2]	34	23	67·6	209	204¾	856	1266	4·1	6·2	137	202	0·7	1·0	16·0	719	1064	3·4	5·2
All Farms	233	123	52·8	173¾	181	425	805	2·5	4·4	79	150	0·5	0·8	18·6	346	655	2·0	3·6

[1] More than 50 per cent of farmed land rented.

[2] More than 50 per cent of farmed land owned.

Note: Columns headed (a) are based on all farms.
Columns headed (b) are based on investing farms only.

Table 5. **Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment By Level of Gross Farm Income**[1]

1964

Level of Income	Farms in Sample			Av. Size of Farms		Gross Capital Expenditure				Grant-aid					Net Capital Expenditure			
	Total	Investing farms		All farms	Investing farms	Per farm		Per acre		Per farm		Per acre		As % of G.C. Exp.	Per farm		Per acre	
	No.	No.	As % of total no.			(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)		(a)	(b)	(a)	(b)
£				acs.	acs.	£	£	£	£	£	£	£	£		£	£	£	£
0 - 999	21	5	23·8	84¾	83½	72	301	0·8	3·6	18	76	0·2	0·9	25·0	54	225	0·6	2·7
1000 - 1999	71	35	49·3	113¾	103¾	309	627	2·7	6·0	74	151	0·6	1·4	23·9	235	476	2·1	4·6
2000 - 2999	57	31	54·4	136	121¾	233	429	1·7	3·5	35	66	0·3	0·5	15·0	198	363	1·4	3·0
3000 - 4999	47	24	51·1	219½	192¾	424	829	1·9	4·3	98	192	0·4	1·0	23·1	326	637	1·5	3·3
5000 - 6999	22	16	72·7	299	274¾	888	1220	2·9	4·5	227	312	0·7	1·2	25·6	661	908	2·2	3·3
7000 and over	15	12	80·0	464	451	1520	1900	3·3	4·2	77	97	0·2	0·2	5·1	1443	1803	3·1	4·0
All Farms	233	123	52·8	173¾	181	425	805	2·5	4·4	79	150	0·5	0·8	18·6	346	655	2·0	3·6

1 Classification of individual farms according to level of income has been undertaken on the basis of their average gross farm income for the three years 1962/63 to 1964/65. Gross farm income is defined as the surplus of farm receipts over farm expenditure (adjusted for creditors and debtors) plus or minus any valuation difference, plus the value of farm produce consumed, the proceeds from the sale of any farm physical assets and any capital grants received.

Note: Columns headed (a) are based on all farms.
Columns headed (b) are based on investing farms only.

Table 6. Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment

By Type of Investment

1964

Type of Investment	Number of Investing Farms	Gross Capital Expenditure			Grant-aid			Net Capital Expenditure			Grant-aid as per cent of Gross Capital Expenditure
		Amount	Per cent	Av. sum per investing farm	Amount	Per cent	Av. sum per investing farm	Amount	Per cent	Av. sum per investing farm	
		£		£	£		£	£		£	
Land	45	14359	14·5	319	4546	24·6	101	9813	12·2	218	31·7
Buildings	81	52024	52·6	642	9806	53·1	121	42218	52·4	521	18·8
Houses[1]	17	22283	22·5	1311	1621	8·8	95	20662	25·7	1216	7·3
Services[2]	35	10336	10·4	295	2505	13·5	71	7831	9·7	224	24·2
All Types of Investment	123[3]	99002	100·0	805	18478	100·0	150	80524	100·0	655	18·6

1 Includes investment directed to farmhouses and farm cottages.

2 Includes investment in schemes involving the supply of water and electricity and the disposal of sewage.

3 This total does not equal the sum of the figures in the column above it, due to the fact that some farms undertook more than one type of investment.

Table 7. Incidence of Investment in Fixed Equipment on Tenanted Land and Owner-Occupied Land Respectively: 233 F.M.S. Farms

1964

	Total Acres		Acres Attracting Investment		
	No.	Per cent	No.	Per cent	As % of total acres
Tenanted land	22,975¾	56·8	11,135	50·0	48·5
Owner-occupied land	17,505¾	43·2	11.123	50·0	63·5
Total farm land	40,481½	100·0	22,258	100·0	55·0

Table 8. Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment : 123 Investing Farms in a Sample of 233 F.M.S. Farms

1964

	Gross Capital Expenditure		Grant-aid		Grant-aid as % of G.C. Exp.	Net Capital Expenditure	
	£	Per cent	£	Per cent		£	Per cent
Landlords	10231	10·3	3347	18·1	32·7	6884	8·5
Tenants	31183	31·5	4047	21·9	13·0	27136	33·7
Landlords & tenants	41414	41·8	7394	40·0	17·9	34020	42·2
Owner-occupiers	57588	58·2	11084	60·0	19·2	46504	57·8
Total	99002	100·0	18478	100·0	18·6	80524	100·0

Table 9. Gross Capital Expenditure, Grant-aid and Net Capital Expenditure on Fixed Equipment By Landlords, Tenants and Owner-Occupiers

1964

	£ per Acre of Rented Land						£ Per Acre of Owner-occupied Land	
	Landlords		Tenants		Landlords & tenants			
	(a)	(b)	(a)	(b)	(a)	(b)	(c)	(d)
Gross capital expenditure	0·4	0·9	1·4	2·8	1·8	3·7	3·3	5·2
Grant-aid	0·1	0·3	0·2	0·4	0·3	0·7	0·6	1·0
Net capital expenditure	0·3	0·6	1·2	2·4	1·5	3·0	2·7	4·2

Note: In columns headed (a) figures relate to total acreage of rented land in sample.
In " " (b) " " " rented acreage in sample to which investment was directed.
In " " (c) " " " total acreage of owner-occupied land in sample.
In " " (d) " " " owner-occupied land in sample to which investment was directed.

III

COMPARISON WITH NATIONAL FIXED CAPITAL INVESTMENT DATA

Data for 1964, derived from the national Farm Management Survey sample, have been made available by the Ministry of Agriculture, Fisheries and Food and this makes possible certain comparisons with South Western regional data. It is again found, for example, that the proportion of farms undertaking some form of investment is higher in the South Western sample than in the national one, the figures for the two groups being 53 per cent and 42 per cent respectively. The level of investment (gross capital expenditure) is also higher on the South Western farms amounting, on average, to £4. 8s. 0d. per acre for investing farms compared with £3. 8s. 0d. for the parent sample; but the fact that the latter yields an average gross investment figure per farm for investing farms of just over £1,000 compared with one of just over £800 for the South Western sample indicates that the lower level of investment per acre attained by the national sample is attributable to the larger average farm size.

Tab.10

A comparison of the data for "Wholly Tenant" and "Wholly Owner-occupier" farms only, analysed by the type of investor, shows that, at a somewhat lower level of investment per acre, the national sample reproduces the relationships already made evident by the regional data. Thus, the level of investment per acre tends to be lower on tenanted farms than on owner-occupied farms, while on the former, the tenant's contribution was usually larger than the landlord's. However, the disparity in the respective contributions of the two parties varied considerably and, in the case of the group of smallest farms in both samples, the relationship was actually reversed with the landlord contributing the major share. The only other group where this occurred was the 300-500 acre group within the South Western sample.

Tab.11

Analysis of the gross capital expenditure undertaken by the farms in the national sample according to the area of investment to which that expenditure was directed reveals that 63 per cent of it was absorbed by farm buildings, compared with a figure of 53 per cent for farms in the South Western sample. The proportion expended on land improvements was also, at 19 per cent, slightly greater in the case of the national sample but both farm dwellings and farm services appeared to be relatively less important areas of investment for the parent sample.

Tab.12

The importance of houses (including both farmhouses and farm cottages) as an investment sector for the South Western farms results from the prominence given to this type of expenditure by a small number of farms in the "Wholly Tenant" group of farms. As a result, it accounted for 37 per cent of total capital expenditure for the group and closely rivalled farm buildings as an investment area. Indeed, with only a relatively small contribution (13 p

Tab.13

cent) being made by landlords towards the total capital expenditure on farm dwellings, this latter sphere of investment emerges as having claimed the major portion (43 per cent) of the overall total of tenants' investment funds. This may be compared with the figure of 12 per cent which represents the share spent on houses by tenants in the national sample for whom farm buildings represented the most important investment area (62 per cent of total expenditure). Farm buildings also claimed by far the greatest share of landlords' investment in both samples, closely similar proportions of 70 per cent and 71 per cent being recorded for the regional and national samples respectively.

The principal area of investment for owner-occupiers was farm buildings - 59 per cent in the national sample compared with 54 per cent in the regional one - but those in the South West placed rather more emphasis on services than their counterparts in the national sample.

Differences which exist between the two samples in the availability and presentation of data relating to grant-aid severely limits the comparisons which are possible in this sphere. They are confined, in fact, to a comparison of the proportions of the total investments, within each of the three main categories capable of attracting Farm Improvement Scheme grants (that is, land, buildings and services), which were actually grant-aided under this Scheme. Not surprisingly, in view of the type of expenditure eligible for assistance under the Farm Improvement Scheme, it was the sector of farm buildings in both samples which made the greatest use of this source of Government financial assistance. More puzzling, perhaps, is the degree of variation which is seen to exist between the two samples in the use made, by each of the three investment categories, of Farm Improvement Scheme facilities. Thus, in the case of both land and building improvements the use made of these facilities was markedly less within the regional sample than in the national one. In contrast, the proportion of investment in services aided by F.I.S. grants was smaller in the national sample. For investment in land, buildings and services as a whole, however, a much larger share of expenditure (61 per cent) appears to have been aided by the Government's major scheme of assistance within the national sample than in the South West sample where that share amounted to 51 per cent.

Tab.14

When analysed by size groups the proportion of total capital expenditure in land, buildings and services which was grant-aided under the Farm Improvement Scheme ranged from 53 per cent to 63 per cent within the national sample and from 30 per cent to 72 per cent within the regional one, though not in any progressive manner over the range of farm size. Moreover, the greater variation in the proportion of total eligible expenditure aided by F.I.S. grants which is seen to occur in the case of the regional sample reasserts itself in respect of expenditure within each of the three main categories of investment.

Table 10.

Gross Fixed Capital Expenditure by Size of Farm
South Western F.M.S. Sample (233 farms) and
National F.M.S. Sample (2247 farms)[1]

1964

Size of Farm[2]	South Western F.M.S. Sample						National F.M.S. Sample					
	Farms in sample		Percent. of farms investing	Gross capital expenditure			Farms in sample		Percent. of farms investing	Gross capital expenditure		
				Per acre		Per farm				Per acre		Per farm
	No.	Per cent		(a)	(b)	(b)	No.	Per cent		(a)	(b)	(b)
				£	£	£				£	£	£
20 and under 50 acres	17	7	41	5·6	13·8	533	195	9	21	1·9	8·4	346
50 " " 100 "	61	26	48	2·8	6·0	415	425	19	28	1·6	5·5	431
100 " " 150 "	48	21	50	1·9	4·2	483	352	16	35	1·9	5·4	721
150 " " 200 "	34	15	50	2·9	6·5	1006	686	30	49	2·2	4·3	951
200 " " 300 "	44	19	57	1·9	3·7	806						
300 " " 500 "	19	8	68	2·2	3·7	1210	396	18	55	1·9	3·5	1417
500 acres and over	10	4	80	3·0	3·8	2328	193	8	59	1·1	1·9	1677
All Farms	233	100	53	2·5	4·4	805	2247	100	42	1·7	3·4	1022

[1] National data derived from unpublished statistics supplied by M.A.F.F.

[2] It will be noted that M.A.F.F. employ only six size groups compared with the seven distinguished by the regional F.M.S. data. Minor differences occur, moreover, at the limits of the intervals employed for the two sets of data but these are insufficient to invalidate comparison.

Note: Columns headed (a) are based on all farms.

Columns headed (b) are based on investing farms only.

Table 11. Gross Fixed Capital Expenditure Per Acre on All Farms by Size of Farm and By Type of Investor

South Western F.M.S. Sample and National F.M.S. Sample[1]

1964

Size of Farm[2]	South Western F.M.S. Sample[3]				National F.M.S. Sample[4]			
	Landlords	Tenants	Landlords & tenants	Owner-occupiers	Landlords	Tenants	Landlords & tenants	Owner-occupiers
	£	£	£	£	£	£	£	£
20 and under 50 acres	4·8	1·3	6·1	2·2	1·1	0·5	1·6	1·8
50 " " 100 "	0·3	2·3	2·6	3·1	0·5	0·6	1·1	2·5
100 " " 150 "	0·0	0·2	0·2	3·8	0·5	0·6	1·1	2·9
150 " " 200 "	0·4	1·0	1·4	4·2	0·4	1·1	1·5	2·8
200 " " 300 "	0·1	0·7	0·8	1·7				
300 " " 500 "	1·6	0·8	2·4	1·4	0·3	1·3	1·6	1·7
500 acres and over	0·0	3·0	3·0	(-)	0·4	0·6	1·0	0·9
All Farms	0·5	1·4	1·9	2·7	0·4	1·0	1·4	2·0

[1] National data derived from unpublished statistics supplied by M.A.F.F. (-) = no farms.

[2] See Footnote 2 to Table 10 (page 17).

[3] and [4] Wholly tenanted and wholly owner-occupied farms only.

Table 12. Percentage Composition of Gross Fixed Capital Expenditure By Size of Farm and Type of Investment South Western F.M.S. Sample (233 farms) and National F.M.S. Sample (2247 farms)[1]

1964

Size of Farm[2]	South Western F.M.S. Sample					National F.M.S. Sample				
	Land	Buildings	Houses[3]	Services[4]	Total	Land	Buildings	Houses[3]	Services[4]	Total
	%	%	%	%	%	%	%	%	%	%
20 and under 50 acres	10	75	••	15	100	11	67	12	10	100
50 " " 100 "	15	58	13	14	100	13	71	10	6	100
100 " " 150 "	13	64	3	20	100	19	61	16	4	100
150 " " 200 "	12	65	15	8	100	20	65	12	3	100
200 " " 300 "	19	60	5	16	100					
300 " " 500 "	18	36	40	6	100	18	66	14	2	100
500 acres and over	10	31	57	2	100	24	51	21	4	100
All Farms	14	53	23	10	100	19	63	15	3	100

[1] National data derived from unpublished statistics supplied by M.A.F.F.

•• = no investment.

[2] See Footnote 2 to Table 10 (page 17).

[3] Includes investment directed to farm houses and farm cottages.

[4] Includes investment in schemes involving the supply of water and electricity and the disposal of sewage.

Table 13. Percentage Composition of Gross Fixed Capital Expenditure by Tenure Status and Type of Investment

South Western F.M.S. Sample and National F.M.S. Sample[1]

1964

Type of Investment	South Western F.M.S. Sample[2]					National F.M.S. Sample[3]				
	Landlords	Tenants	Agg. exp. by landlords & tenants	Landlords' exp. as % of agg. exp.	Owner-occupiers	Landlords	Tenants	Agg. exp. by landlords & tenants	Landlords' exp. as % of agg. exp.	Owner-occupiers
	%	%	%	%	%	%	%	%	%	%
Land	8	12	11	18	19	10	24	20	11	23
Buildings	70	38	46	38	54	71	62	64	27	59
Houses[4]	19	43	37	13	9	18	12	14	32	14
Services[5]	3	7	6	12	18	1	2	2	13	4
Total	100	100	100	25	100	100	100	100	24	100

[1] National data derived from unpublished statistics supplied by M.A.F.F.

[2] and [3] Wholly tenanted and wholly owner-occupied farms only.

[4] Includes investment directed to farmhouses and farm cottages.

[5] Includes investment in schemes involving the supply of water and electricity and the disposal of sewage.

Table 14. Capital Expenditure Aided Under the Farm Improvement Scheme as a Percentage of Total Gross Capital Expenditure on Fixed Equipment (Excluding Houses) by Size of Farm and Type of Investment : South Western F.M.S. Sample (233 farms) and National F.M.S. Sample (2247 farms)[1]

1964

Size of Farm[2]	South Western F.M.S. Sample				National F.M.S. Sample			
	Land	Buildings	Services[3]	Total	Land	Buildings	Services[3]	Total
	%	%	%	%	%	%	%	%
20 and under 50 acres	50	57	31	52	67	59	34	57
50 " " 100 "	18	56	53	49	64	52	37	53
100 " " 150 "	63	42	28	42	35	61	24	53
150 " " 200 "	44	76	82	72	53	68	41	63
200 " " 300 "	13	33	40	30				
300 " " 500 "	50	86	45	71	54	66	34	63
500 acres and over	55	53	..	51	58	64	23	60
All Farms	37	56	44	51	53	65	33	61

1 National data derived from unpublished statistics supplied by M.A.F.F.

.. = no investment under F.I.S.

2 See Footnote 2 to Table 10 (page 17).

3 Includes investment in schemes involving the supply of water and electricity and the disposal of sewage.

IV

INVESTMENT IN MACHINERY

The data concerning investment in machinery which are presented in this report have been derived from a more detailed analysis than has been hitherto undertaken of information obtained from F.M.S. farms in the South West of England. They show the nature of the main transactions in machinery in 1964 and indicate the levels of both gross and net expenditure on machinery achieved by the sample of farms and, as far as the limitations of imputed depreciation rates permit, their level of overall net investment in machinery.[1]

Within the sample of 233 farms, 100 tractors were purchased in the year to which this enquiry relates and 55 sold while the purchases and sales of cars and other vehicles together amounted to 98 and 71 respectively. Almost as many combines were sold (18) as were bought (21), while 26 balers were acquired during the year and only 18 sold. Combines represented the most expensive form of investment with an average purchase price of £1,242 while cars ranked second in this respect - averaging nearly £700 per car purchased. The average purchase price for tractors was £447 and for balers the figure was slightly higher at £492.

Tab.15

The average prices realised on the sale of tractors, cars and other vehicles were all approximately half the average purchase price of the replacement unit; but the disparity which occurred in the case of combines and balers between average replacement and average sale price is somewhat greater, the latter figure being about one-third of the former. Balers tended to be held rather longer than the other main types of equipment, being retained on average for just under eight years, compared with just over six years in the case of tractors and combines and approximately four years for both cars and other vehicles.

The average gross expenditure on machinery for the whole South West F.M.S. sample in 1964 was £5. 8s. 0d. per acre but, for individual type groups within the sample, this figure varied from £3. 10s. 0d. per acre for the Devon and Cornwall Cattle and Sheep (Lowland) group to £7. 0s. 0d. per acre for the intensive Cornwall Dairy and Pigs group. Not unexpectedly, the two other groups with the highest level of gross expenditure per acre were those in which arable farming plays a significant part - the Devon and Cornwall Mixed with Crops group and the Dorset Dairy and Arable group. Similar rankings are found in the case of net expenditure (that is, gross expenditure less sales) though, of course, the individual group figures fall around the lower sample average of £4. 2s. 0d. per acre. Overall net investment in machinery has been calculated for the sample to be about £1. 6s. 0d. per acre and figures range for individual groups from 8/0d. to £2 per acre. Although strong reservations must be attached, these figures are at a level which points to

Tab.16

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(1) The rates of depreciation employed by this Department in respect of the data on which this report is based are: 20 per cent for tractors and 10 per cent for all other items of machinery and equipment. Both rates are applied on a diminishing balance basis.

the very real danger of a run-down in the equipment inventories for several of the groups distinguished.

An examination of trends in the level of investment in machinery as size of farm varies shows that, both in terms of gross expenditure and net expenditure per farm, investment increases, without interruption to the trend, with increasing farm size. When expressed on a "per acre" basis, however, a pattern of results emerges which is reminiscent of the trend in the level of gross expenditure per acre on fixed equipment. Gross capital expenditure per acre on machinery is seen to decline at first as one moves from the lower end of the farm size range to groups occupying an intermediate position. Over the upper range of farm size, however, there is some evidence that this trend is reversed and that the level of machinery investment per acre increases with increasing farm size. There is also some evidence - although on the basis of only one year's results the inference must be a tentative one - that the upturn in the level of machinery investment per acre occurs at a somewhat lower point within the range of farm size than it does in the case of fixed equipment. If the latter should be established as a consistent feature of the pattern of investment then it, too, can be accommodated by the earlier hypothesis that as incomes rise in association with farm size the proportion of total income available for investment also rises. Thus, it may be that, as investment funds become available, the first call on those funds will tend to assume the form of machinery investment. However, further light on the various investment priorities of farmers must await more specific enquiries than that on which the present report is based.

Tab.17

In contrast to the position revealed by the investigation into levels of investment in fixed equipment, gross capital expenditure per acre on machinery was higher in the case of the "Wholly Tenant" group, at £4. 18s. 0d. than for the "Wholly Owner-occupier" group where the average gross investment per acre amounted to £4. 12s. 0d. although the difference may not be a significant one. The comparable rates of investment in machinery for the two composite tenancy groups were much higher but no explanation of this fact can easily be advanced except that the smaller numbers of farms which comprise these two groups may have given rise to greater sampling error. Broad relationships between the four tenancy groups similar to those just described are evident, at appropriately lower levels, in respect of the "per acre" figures for both net expenditure and net investment in machinery.

Tab.18

Analysis of results depicting gross and net machinery expenditure per acre according to the level of gross farm income shows a general upward trend in expenditure with increasing income, despite some disturbance of that trend. It is notable, however, that, at the levels of depreciation imputed for the purposes of this study, only within the highest income groups are net additions

Tab.19

to the machinery valuation being made to any really significant extent and that in the group of farms with the lowest incomes (under £1,000), disinvestment in machinery is almost certainly taking place.

Taking the sample as a whole, the largest share of gross capital expenditure (30 per cent) was spent on harvesting equipment, among which combine harvesters featured prominently; cars and other vehicles (including estate cars, utilities and vans) were second in importance, accounting for 25 per cent of total machinery expenditure, and tractors third, claiming just over 20 per cent. Five of the type of farming groups into which the sample is divided resembled the parent sample inasmuch as harvesting equipment was the most important area of machinery investment but in four of the type groups - the Dorset Dairy, the East Devon Dairy, the Devon and Cornwall Cattle and Sheep (Upland) and the Cornwall Dairy and Pigs group - cars and other vehicles attracted the major share of machinery investment funds.

Tab.20

The prominence with which cars and other vehicles feature in the pattern of machinery expenditure is confirmed by other analyses. In none of the seven size groups distinguished within the sample was expenditure of this nature less than one-fifth of total machinery expenditure and in the group of smallest farms - where, incidentally, expenditure on tractors amounted to only five per cent of the total - it accounted for 47 per cent. Expenditure on harvesting equipment was relatively unimportant, as one would expect, among farms of less than 50 acres while combine harvesters appear as important constituents of machinery expenditure among farms of 150 acres and over.

Tab.21

Analysis of the sample according to tenure status revealed a close similarity in the machinery expenditure pattern of the two homogeneous tenancy groups, except for the slightly greater emphasis on the purchase of vehicles evident in the case of the owner-occupiers but analysis according to level of income again reveals the existence of considerable variation in the composition of machinery expenditure. In the absence of any discernible trends in the variation perceived, however, comment is withheld except to draw attention to the relative importance assumed by expenditure on cars and vehicles in all but the lowest income group - although that importance is not, it would seem, one which grows with increasing income.

Tab.22

Tab.23

Any variation which occurs in the pattern of expenditure on machinery and equipment will, of course, be partly induced by the "lumpiness" and periodic nature of this type of farm expenditure and increasingly so as sub-division of the sample occurs or as the level of total expenditure with which one is concerned is lowered. For this reason, the figures presented here, based as they are on data for one year only, should be interpreted with a degree of caution.

Table 15. Numbers and Values of Purchases and Sales of Vehicles, Machinery, Plant and Equipment : 233 F.M.S. Farms

1964

Class of Equipment	Purchases				Sales				
	No.	Value	Per cent	Average price	No.	Value	Per cent	Average price	Average period of ownership
		£		£		£		£	years
Tractors	100	44748	20·7	447	55	11605	22·6	211	6·3
Cars	54	37223	17·2	689	48	15993	31·1	333	3·7
Other vehicles	44	17710	8·2	402	23	5380	10·5	234	4·2
Combines	21	26088	12·1	1242	18	7789	15·1	433	6·3
Balers	26	12799	5·9	492	18	2808	5·4	156	7·9
Total	-	138568	64·1	-	-	43575	84·7	-	-
Other equipment	-	77760	35·9	-	-	7849	15·3	-	-
Total	-	216328	100·0	-	-	51424	100·0	-	-

Table 16. Capital Expenditure on Machinery, Plant and Equipment by Type of Farming

1964

Type of Farming	Number of Farms	Average Size of Farms	Gross Capital Expenditure		Sales		Net Capital Expenditure		Net Investment[1]	
			Per farm	Per acre	Per farm	Per acre	Per farm	Per acre	Per farm	Per acre
		acs.	£	£	£	£	£	£	£	£
Dorset Dairy	37	150¾	758	5·0	202	1·3	556	3·7	105	0·7
East Devon Dairy	31	103¾	518	5·0	133	1·3	385	3·7	38	0·4
D & C Dairy & Mixed	50	130	680	5·2	201	1·5	479	3·7	123	0·9
D & C Mixed Livestock	32	154¾	771	5·0	142	0·9	629	4·1	220	1·4
D & C Mixed with Crops	22	226	1361	6·0	287	1·3	1074	4·7	416	1·8
D & C Cattle & Sheep:										
(a) Lowland	18	176½	616	3·5	136	0·8	480	2·7	171	1·0
(b) Upland	10	239½	1063	4·4	357	1·5	706	2·9	278	1·2
Dorset Dairy & Arable	16	491½	3065	6·2	656	1·3	2409	4·9	885	1·8
Cornwall Dairy & Pigs	17	107½	756	7·0	142	1·3	614	5·7	217	2·0
All Farms	233	173¾	928	5·4	221	1·3	707	4·1	219	1·3

[1] Net capital expenditure less imputed depreciation.

Table 17. Capital Expenditure on Machinery, Plant and Equipment by Size of Farm

1964

Size of Farm	Number of Farms	Average Size of Farms	Gross Capital Expenditure		Sales		Net Capital Expenditure		Net Investment[1]	
			Per farm	Per acre	Per farm	Per acre	Per farm	Per acre	Per farm	Per acre
		acs.	£	£	£	£	£	£	£	£
20 and under 50 acres	17	39	212	5·4	74	1·9	138	3·5	1	0·0
50 " " 100 "	61	71¼	334	4·7	63	0·9	271	3·8	44	0·6
100 " " 150 "	48	124½	562	4·5	139	1·1	423	3·4	90	0·7
150 " " 200 "	34	171¾	713	4·1	125	0·7	588	3·4	114	0·7
200 " " 300 "	44	238½	1298	5·4	364	1·5	934	3·9	289	1·2
300 " " 500 "	19	369¾	2401	6·5	613	1·7	1788	4·8	866	2·3
500 acres and over	10	615¾	3844	6·3	779	1·3	3065	5·0	1108	1·8
All Farms	233	173¾	928	5·4	221	1·3	707	4·1	219	1·3

[1] Net capital expenditure less imputed depreciation.

Table 18. Capital Expenditure on Machinery, Plant and Equipment By Tenure Status

1964

Tenure Status	Number of Farms	Average Size of Farms	Gross Capital Expenditure		Sales		Net Capital Expenditure		Net Investment[1]	
			Per farm	Per acre	Per farm	Per acre	Per farm	Per acre	Per farm	Per acre
		acs.	£	£	£	£	£	£	£	£
Wholly Tenant	96	178½	878	4·9	197	1·1	681	3·8	179	1·0
Mainly Tenant[2]	33	182¼	1257	6·9	311	1·7	946	5·2	379	2·1
Wholly Owner-occupier	70	146¼	676	4·6	173	1·2	503	3·4	123	0·8
Mainly Owner-occupier[3]	34	209	1270	6·1	296	1·4	974	4·7	379	1·8
All Farms	233	173¾	928	5·4	221	1·3	707	4·1	219	1·3

[1] Net capital expenditure less imputed depreciation.

[2] More than 50 per cent of farmed land rented.

[3] More than 50 per cent of farmed land owned.

Table 19. Capital Expenditure on Machinery, Plant and Equipment By Level of Gross Farm Income[1]

1964

Level of Income	Number of Farms	Average Size of Farms	Gross Capital Expenditure		Sales		Net Capital Expenditure		Net Investment[2]	
			Per farm	Per acre	Per farm	Per acre	Per farm	Per acre	Per farm	Per acre
£		acs.	£	£	£	£	£	£	£	£
0 - 999	21	84¾	117	1·4	16	0·2	101	1·2	- 34	- 0·4
1000 - 1999	71	113¾	370	3·3	77	0·7	293	2·6	39	0·3
2000 - 2999	57	136	658	4·8	112	0·8	546	4·0	163	1·2
3000 - 4999	47	219½	1004	4·6	273	1·3	731	3·3	168	0·8
5000 - 6999	22	299	2363	7·9	678	2·3	1685	5·6	384	2·5
7000 and over	15	464	3396	7·3	766	1·6	2630	5·7	1041	2·2
All Farms	233	173¾	928	5·4	221	1·3	707	4·1	219	1·3

[1] See Footnote 1 to Table 5 (page 11).

[2] Net capital expenditure less imputed depreciation.

Table 20. Percentage Composition of Gross Capital Expenditure on Machinery, Plant and Equipment

By Type of Farming

1964

Class of Equipment	All Farms		Dorset Dairy		East Devon Dairy		D. & C. Dairy and Mixed		D. & C. Mixed Livestock		D. & C. Mixed with Crops		Devon and Cornwall Cattle & Sheep (a) Lowland		Devon and Cornwall Cattle & Sheep (b) Upland		Dorset Dairy and Arable		Cornwall Dairy and Pigs	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Tractors		20·7		22·2		23·4		26·4		24·2		15·0		15·5		23·3		17·7		19·2
Vehicles:																				
Cars	17·2		26·6		26·2		15·5		6·0		15·4		15·1		20·3		14·4		25·8	
Other	8·2	25·4	9·4	36·0	9·4	35·6	3·7	19·2	5·8	11·8	2·0	17·4	10·9	26·0	37·5	57·8	9·4	23·8	3·5	29·3
Cultivating eqpt.		9·1		9·6		13·9		9·2		7·4		8·3		8·2		2·0		8·3		17·2
Harvesting eqpt:																				
Combines	12·1		0·6		-		6·6		16·1		39·6		15·1		-		12·3		1·0	
Other	18·2	30·3	21·2	21·8	20·8	20·8	26·1	32·7	24·3	40·4	7·6	47·2	28·0	43·1	13·6	13·6	12·6	24·9	16·0	17·0
Fixed equipment		6·1		3·6		1·6		6·0		10·2		8·6		4·6		2·5		7·3		6·1
Other equipment		8·4		6·8		4·7		6·5		6·0		3·5		2·6		0·8		18·0		11·2
Total		100·0		100·0		100·0		100·0		100·0		100·0		100·0		100·0		100·0		100·0

Table 21. Percentage Composition of Gross Capital Expenditure on Machinery, Plant and Equipment

By Size of Farm

1964

Class of Equipment	All Farms		20 and under 50 acres		50 and under 100 acres		100 and under 150 acres		150 and under 200 acres		200 and under 300 acres		300 and under 500 acres		500 acres and over	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Tractors		20·7		5·5		27·0		26·9		23·3		14·6		19·8		22·8
Vehicles:																
Cars	17·2		37·4		24·9		17·5		21·7		14·3		16·5		13·4	
Other	8·2	25·4	9·4	46·8	6·3	31·2	4·5	22·0	0·7	22·4	16·5	30·8	4·2	20·7	8·8	22·2
Cultivating equipment		9·1		24·3		10·6		8·6		10·6		8·7		7·4		9·1
Harvesting equipment:																
Combines	12·1		-		0·6		1·4		10·9		17·9		22·5		6·4	
Other	18·2	30·3	12·0	12·0	19·4	20·0	30·7	32·1	18·3	29·2	15·1	33·0	18·1	40·6	13·7	20·1
Fixed equipment		6·1		2·0		4·1		6·9		6·8		8·4		3·9		6·6
Other equipment		8·4		9·4		7·1		3·5		7·7		4·5		7·6		19·2
Total		100·0		100·0		100·0		100·0		100·0		100·0		100·0		100·0

Table 22. Percentage Composition of Gross Capital Expenditure on Machinery, Plant and Equipment By Tenure Status

1964

Class of Equipment	All Farms		Wholly Tenant		Mainly Tenant[1]		Wholly Owner-occupier		Mainly Owner-occupier[2]	
	%	%	%	%	%	%	%	%	%	%
Tractors		20·7		18·1		28·6		17·8		21·3
Vehicles:										
Cars	17·2		15·0		15·5		24·4		15·2	
Other	8·2	25·4	9·7	24·7	5·6	21·1	8·6	33·0	7·2	22·4
Cultivating equipment		9·1		10·3		9·0		7·8		8·6
Harvesting equipment:										
Combines	12·1		13·5		6·4		8·7		18·5	
Other	18·2	30·3	18·6	32·1	20·3	26·7	17·6	26·3	16·2	34·7
Fixed equipment		6·1		6·2		7·1		7·4		3·8
Other equipment		8·4		8·6		7·5		7·7		9·2
Total		100·0		100·0		100·0		100·0		100·0

[1] More than 50 per cent of farmed land rented.

[2] More than 50 per cent of farmed land owned.

Table 23. Percentage Composition of Gross Capital Expenditure on Machinery, Plant and Equipment By Level of Gross Farm Income[1]

1964

Class of Equipment	All Farms		£0 - 999		£1000 - 1999		£2000 - 2999		£3000 - 4999		£5000 - 6999		£7000 & over	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Tractors		20·7		7·5		21·2		22·6		19·7		26·3		14·5
Vehicles:														
Cars	17·2		-		28·5		16·6		15·7		15·3		16·1	
Other	8·2	25·4	1·8	1·8	7·3	35·8	6·2	22·8	14·1	29·8	5·4	20·7	7·7	23·8
Cultivating equipment		9·1		8·3		8·9		11·8		10·0		5·9		10·0
Harvesting equipment:														
Combines	12·1		-		3·1		6·6		15·7		13·5		16·4	
Other	18·2	30·3	63·9	63·9	17·7	20·8	26·6	33·2	14·4	30·1	16·8	30·3	15·2	31·6
Fixed equipment		6·1		8·3		5·4		5·9		6·0		8·2		4·7
Other equipment		8·4		10·2		7·9		3·7		4·4		8·6		15·4
Total		100·0		100·0		100·0		100·0		100·0		100·0		100·0

[1] See Footnote 1 to Table 5 (page 11).

APPENDIX.

DEFINITION OF TYPE OF FARMING GROUPS

The eight type of farming groups which are employed in this report are defined as follows:

GROUP 1. DORSET DAIRY. Primarily dairy farms situated in north and west Dorset with supplementary pig and poultry enterprises. Cash cropping not important.

GROUP 2. EAST DEVON DAIRY. Dairy farms in East Devon with supplementary poultry and pig enterprises. Poultry forms an important enterprise but cash cropping is negligible.

GROUP 3. DEVON AND CORNWALL DAIRY AND MIXED. Mixed livestock farms with dairying as the main enterprise, widely dispersed throughout Cornwall and Devon west of the River Exe.

GROUP 4. DEVON AND CORNWALL MIXED LIVESTOCK. Mixed livestock farms with little or no cash cropping and with the milk enterprise comprising less than one-third of gross output.

GROUP 5. DEVON AND CORNWALL MIXED WITH CROPS. Farms similar to those in Group 4 but with cash crops accounting for not less than 15 per cent of gross output.

GROUP 6(a).DEVON AND CORNWALL CATTLE AND SHEEP (LOWLAND). Lowland farms with the cattle enterprise more important than sheep and a considerable proportion of the stock sold fat, with some summer fattening of cattle on grass.

GROUP 6(b).DEVON AND CORNWALL CATTLE AND SHEEP (UPLAND). Farms in upland areas where the sheep enterprise is more important than cattle and most of the stock sold as store. The disposal of breeding stock, particularly ewes, forms an important sale product.

GROUP 7. DORSET DAIRY AND ARABLE. Large farms mainly on the Chalk Downs in Dorset with considerable cash cropping and an important dairy enterprise.

GROUP 8. CORNWALL DAIRY AND PIGS. Densely stocked farms in Cornwall which rely heavily on purchased feedingstuffs.

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