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Farm business analysis (pt)

WYE COLLEGE
(University of London)

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Farm Business Statistics
for
South East England
(1959)

by
J. D. SYKES

School of rural economics & related studies

DEPARTMENT OF AGRICULTURAL ECONOMICS

1960

FARM MANAGEMENT SURVEY REPORT No. IX

Farm Business Statistics
for
South East England

A reference book for use in problems of
Farm Management

Copies of this bulletin may be obtained, price 2s. 6d. post free,
from: The Secretary, Wye College, Ashford, Kent.

April, 1960

FARM MANAGEMENT PUBLICATIONS

Profits & Problems of Farming in South-East England (1956)

The Recession in Farm Profits in South-East England (1958)

The Small Farm on Heavy Land (1958)

Farm Output & Expenditure Summaries (1959)

A Guide to the Feed Economy of the Dairy Farm

A Guide to Pig Production—Breeding and Rearing

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INTRODUCTION

FOR advisory and research reasons, the Economics Department of Wye College is interested in the problems and progress of the 13,000 or so farm businesses of Kent, Surrey, East & West Sussex. These farms produce annually between £90—£100m worth of milk, eggs, meat, grain, hops, fruit and vegetables. The acreage of farmed land in these counties, though shrinking because of urban growth, comprises about 1,350,000 acres, some of this being amongst the most highly farmed in the Kingdom. Although there are many highly fertile acres, the skill of the 70,000 workers and farmers largely account for its productivity. The rewards from farming, too, are not inconsiderable and some £40m are shared annually amongst the three partners in farming; about £20m being paid in wages; £3m going to landlords on the land that is rented, and the £15-17m remaining as the farmers' own profits.

Those familiar with the farming of North and East Kent and parts of West Sussex, are well aware of its excellence and generally high profitability. Those who know the whole province, however, are also aware of the far larger area of less favoured land, such as the difficult soils and small, often uneconomic, farms of the Weald and North Downs. Such farms present a continual challenge which the average occupier finds it hard to meet.

Yet substantial improvements in profitability can be effected where individuals adopt a systematic, business-like approach to their farming problems. An increasing number of farmers are becoming aware of the necessity for this. The main aim of this booklet is to assist these people in developing sound farming businesses by throwing light on the current profitability of various types and sizes of farms and on better methods of management. Regular comparisons of financial and economic results are one way of revealing the strengths and weaknesses of a farm business and to assist in this process accounts of some 200 farms scattered throughout South-East England have been analyzed. This sample represents about one in every 50-60 farms engaged in commercial food production. The information collected has the virtue of being derived from full financial accounts and records. It should also be stressed that careful attention has been given to the reconciliation of the data and to the classification of individual results.

OUTPUT, EXPENDITURE, PROFITABILITY & EFFICIENCY STANDARDS 1958-59

Per 100 acre results for various types and sizes of farms

MILK-SELLING FARMS	6
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Details of the method of classifying farms are given on pages 58-64.

On behalf of the Department of Agricultural Economics, I would like to thank all farmers, accountants, valuers and others who have spent time making available records and accounts. Thanks are also due to the members of the clerical staff of the Department and to Mr. J. H. Hooper, Mr. K. L. Oake and Mr. J. D. Sykes who are principally concerned with the Farm Management Survey Scheme.

G. P. WIBBERLEY,
Provincial Agricultural Economist.

MILK-SELLING FARMS

	<i>Page</i>
1. <i>Predominantly Milk</i>	8
under 100 acres	
over 100 acres	
2. <i>Milk with Pigs and/or Poultry</i>	10
under 100 acres	
over 100 acres	
3. <i>Milk with Arable</i>	12
under 200 acres	
200—450 acres	
over 450 acres	
4. <i>Milk with Mixed Crops and Livestock</i>	14
under 150 acres	
150—250 acres	
over 250 acres	

THE results given on the following pages summarise the business performance of farms, of various types and sizes, in ten dairy and eleven non-dairy farm groups, for the year ending in April, 1959.

In order to facilitate the making of comparisons the average values of crop and livestock production, the main items of expenditure and measures of profitability are expressed per 100 acres of crops and grass. Indicators of efficiency are also set out in order to record the most important features of organization, yields, the feed economy, and labour and machinery use.

Since the value of any comparative management analysis depends in the first instance upon correct identification of farm type, readers are referred to page 58 for details of classification of farms according to standard output, and to page 67 for particulars of standard output calculations.

RESULTS FROM MILK-SELLING FARMS

Four main groups of dairy farms are distinguished and within these sub-groups have been set out according to farm size.

The four groups take the following order (in terms of profitability):

1. Milk with considerable arable cropping
2. Milk with mixed crops and livestock
3. Milk with important pig and/or poultry enterprises
4. Predominantly milk-selling.

The first two groups are made up of farms of a larger size than the other two. In addition they are usually situated on more fertile soils. It should be noted, however, that there appear to be fairly close associations between farm size and the relative importance of various farm enterprises. For example, there is a strong tendency for the proportion of crop, sheep and cattle output to increase with increasing acreage. Milk, pig and poultry production, on the other hand, become relatively less important with increasing size of farm.

Type of Farm : PREDOMINANTLY MILK

Average Acreage	65½	174
Size range	<i>Under 100 acres</i>	<i>Over 100 acres</i>
Number of Farms	12	12
STANDARD OUTPUT	%	%
Milk	75.2	72.3
Sheep and Cattle	15.3	18.2
Pigs and Poultry	6.6	3.8
Crops	2.9	5.7
Total	100.0	100.0

Results per 100 acres

OUTPUT	£	£
Cattle	535	612
Sheep and Wool	21	37
Pigs	46	—
Poultry and Eggs	215	138
Milk	4239	3620
<i>Total Livestock</i>	5056	4407
Crops	157	248
Miscellaneous	291	230
<i>Total Output</i>	5504	4885
<i>Less</i> Feed Purchases	1521	1041
Seed Purchases	78	97
<i>Net Output</i>	3905	3747
EXPENDITURE	£	£
Fertilizers	311	340
Rent and Rates	352	326
Labour—paid	857	1259
unpaid	682	176
Power and Machinery	809	649
Miscellaneous	449	436
<i>Total</i>	3460	3186

MANAGEMENT AND INVESTMENT

INCOME	£ 445	£ 561
<i>Add</i> Farmer and wife's labour	£ 539	£ 135
NET FARM INCOME	£ 984	£ 696
TENANT'S CAPITAL per 100 acres	£3866	£4061
RETURN ON CAPITAL	11%	14%

EFFICIENCY STANDARDS

	<i>Under 100 acres</i>	<i>Over 100 acres</i>
System Index	127	113
Farm Feed Acres per 100 acres	95.3	91.5
Livestock Units per 100 acres ..	52.2	47.6
Percentage of Intensive Livestock	71.5	65.5
Yield Index	102	103
Livestock Yield Index	101	103
Crop Yield Index	92	125
Output per Productive L.S.U. ..	£ 95.4	£ 94.9
Milk Yield per cow (galls.) ..	764	799
Milk Sales per cow	£ 120	£ 123
Forage Acres per Grazing L.S.U.	2.01	1.90
Farm Feed Acres per L.S.U. ..	1.96	2.01
Adj. Feed Acres per L.S.U. ..	2.82	2.66
Utilised S.E. per Farm Feed Acre	13.5 cwt	15.2 cwt
Milk Sales per Adj. Feed Acre	£ 43.2	£ 48.4
Livestock Output per Adj. Feed Acre	£ 34.3	£ 37.0
Work Units per man	251	257
Labour Cost per 100 M.W.U. ..	£ 180	£ 177
Labour and Machinery Cost per £100 Net Output	£ 61.1	£ 57.0
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance & Repairs	156	129
Fuel & Electricity	163	134
Contractors' Charges	116	46
Depreciation	212	141
	—	—
<i>Total</i>	647	450
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	6	14
Roots	3	5
Hops & Fruit	—	—
Miscellaneous	2	4
Grass	89	77

Type of Farm : MILK, PIGS AND/OR POULTRY

Average Acreage	66	166
Size range	<i>Under 100 acres</i>	<i>Over 100 acres</i>
Number of Farms	11	9
STANDARD OUTPUT	%	%
Milk	49.7	51.8
Sheep and Cattle	10.5	2.0
Pigs and Poultry	36.9	38.5
Crops	2.9	7.7
Total	100.0	100.0
	<i>Results per 100 acres</i>	
OUTPUT	£	£
Cattle	391	457
Sheep and Wool	24	79
Pigs	2181	1116
Poultry and Eggs	1271	757
Milk	4508	2709
<i>Total Livestock</i>	8375	5118
Crops	296	438
Miscellaneous	346	185
<i>Total Output</i>	9017	5741
<i>Less</i> Feed Purchases	3855	2077
Seed Purchases	78	106
<i>Net Output</i>	5084	3558
EXPENDITURE	£	£
Fertilizers	249	258
Rent and Rates	430	285
Labour—paid	1089	1152
unpaid	962	316
Power and Machinery	1040	671
Miscellaneous	826	443
<i>Total</i>	4596	3125
MANAGEMENT AND INVESTMENT		
INCOME	£ 488	£ 433
<i>Add</i> Farmer and wife's labour	£ 845	£ 243
NET FARM INCOME	£1333	£ 676
TENANT'S CAPITAL per 100 acres	£6649	£3991
RETURN ON CAPITAL	7%	11%

EFFICIENCY STANDARDS

	<i>Under 100 acres</i>	<i>Over 100 acres</i>
System Index	252	143
Farm Feed Acres per 100 acres	95.6	89.1
Livestock Units per 100 acres ..	94.4	52.1
Percentage of Intensive Livestock	78.2	76.5
Yield Index	88	97
Livestock Yield Index	87	98
Crop Yield Index	109	101
Output per Productive L.S.U. ..	£ 90.3	£ 98.5
Milk Yield per cow (galls.) ..	724	822
Milk Sales per cow	£ 115	£ 132
Forage Acres per Grazing L.S.U.	1.79	2.33
Farm Feed Acres per L.S.U. ..	1.36	1.79
Adj. Feed Acres per L.S.U. ..	2.66	2.97
Utilised S.E. per Farm Feed Acre	18.4 cwt	12.2 cwt
Milk Sales per Adj. Feed Acre	£ 47.1	£ 45.3
Livestock Output per Adj. Feed Acre	£ 35.8	£ 33.6
Work Units per man	297	250
Labour Cost per 100 M.W.U. ..	£ 147	£ 176
Labour & Machinery Cost per £100 Net Output	£ 70.4	£ 62.1
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance & Repairs	146	123
Fuel & Electricity	218	158
Contractors' Charges	94	49
Depreciation	194	154
	—	—
<i>Total</i>	652	484
	—	—
	<i>Acres</i>	<i>Acres</i>
Crops per 100 acres		
Cereals	10	26
Roots	5	5
Hops & Fruit	—	—
Miscellaneous	1	—
Grass	84	69

Type of Farm : MILK WITH ARABLE

Average Acreage ..	129½	335	609¼
Size range ..	<i>under 200</i>	200-449	<i>over 449</i>
	<i>acres</i>	<i>acres</i>	<i>acres</i>
Number of Farms ..	11	10	9
STANDARD OUTPUT ..	%	%	%
Milk ..	50.8	41.7	33.0
Sheep and Cattle ..	14.1	19.9	21.2
Pigs and Poultry ..	4.5	2.5	3.2
Crops ..	30.6	35.9	42.6
Total ..	100.0	100.0	100.0
	<i>Results per 100 acres</i>		
OUTPUT ..	£	£	£
Cattle ..	643	429	402
Sheep and Wool ..	1	130	174
Pigs ..	5	—	57
Poultry and Eggs ..	146	108	60
Milk ..	2793	1735	1168
<i>Total Livestock</i> ..	<u>3588</u>	<u>2402</u>	<u>1861</u>
Crops ..	1789	1624	1894
Miscellaneous ..	307	213	172
<i>Total Output</i> ..	<u>5684</u>	<u>4239</u>	<u>3927</u>
<i>Less</i> Feed Purchases ..	721	429	349
Seed Purchases ..	186	190	183
<i>Net Output</i> ..	<u>4777</u>	<u>3620</u>	<u>3395</u>
EXPENDITURE ..	£	£	£
Fertilizers ..	388	311	316
Rent and Rates ..	311	252	262
Labour—paid ..	1332	1037	1099
unpaid ..	240	80	25
Power and Machinery ..	887	750	539
Miscellaneous ..	545	298	255
<i>Total</i> ..	<u>3703</u>	<u>2728</u>	<u>2496</u>
MANAGEMENT AND INVEST- MENT INCOME ..	£1074	£ 892	£ 899
<i>Add</i> Farmer and wife's labour ..	£ 230	£ 57	£ 25
NET FARM INCOME ..	£1304	£ 949	£ 924
TENANT'S CAPITAL per 100 acres ..	£4223	£3994	£3337
RETURN ON CAPITAL ..	25%	22%	27%

EFFICIENCY STANDARDS

	<i>under 200 acres</i>	<i>200-449 acres.</i>	<i>over 449 acres</i>
System Index	117	97	92
Farm Feed Acres per 100 acres	65.0	61.9	59.0
Livestock Units per 100 acres	35.6	31.0	27.5
Percentage of Intensive Live- stock	63.9	51.3	44.8
Yield Index	115	102	98
Livestock Yield Index ..	113	95	89
Crop Yield Index	120	112	111
Output per Productive L.S.U.	£103.5	£ 79.2	£ 68.9
Milk Yield per cow (galls.)	874	765	730
Milk Sales per cow ..	£ 133	£ 115	£ 105
Forage Acres per Grazing L.S.U.	1.65	1.80	2.09
Farm Feed Acres per L.S.U.	1.88	2.07	2.22
Adj. Feed Acres per L.S.U.	2.49	2.51	2.62
Utilised S.E. per Farm Feed Acre	17.3 cwt	15.4 cwt	14.8 cwt
Milk Sales per Adj. Feed Acre	£ 56.1	£ 47.0	£ 43.3
Livestock Output per Adj. Feed Acre	£ 43.2	£ 31.7	£ 27.4
Work Units per man ..	239	258	225
Labour Cost per 100 M.W.U.	£ 186	£ 174	£ 192
Labour & Machinery Cost per £100 Net Output ..	£ 52.6	£ 51.8	£ 51.8
Power & Machinery Costs per 1000 Tractor Work Units :	£	£	£
Licences, Insurance & Repairs	170	157	120
Fuel and Electricity ..	144	127	108
Contractors' Charges ..	54	46	29
Depreciation	200	188	128
<i>Total</i>	<hr/> 568 <hr/>	<hr/> 518 <hr/>	<hr/> 385 <hr/>
Crops per 100 acres	<i>acres</i>	<i>acres</i>	<i>acres</i>
Cereals	36	38	41
Roots	6	7	6
Hops & Fruit	1	1	—
Miscellaneous	4	7	3
Grass	53	47	50

Type of Farm : MILK WITH MIXED CROPS & LIVESTOCK

Average Acreage	..	97	190½	451¼
Size range	..	<i>under 150</i>	150-250	<i>over 250</i>
		<i>acres</i>	<i>acres</i>	<i>acres</i>
Number of Farms	..	10	13	9
STANDARD OUTPUT		%	%	%
Milk	..	43.0	39.5	36.5
Sheep and Cattle	..	16.5	24.3	23.9
Pigs and Poultry	..	23.0	19.2	13.4
Crops	..	17.5	17.0	26.2
Total ..	..	100.0	100.0	100.0
<i>Results per 100 acres</i>				
OUTPUT		£	£	£
Cattle	..	474	538	452
Sheep and Wool	..	135	287	225
Pigs	..	412	410	257
Poultry and Eggs	..	647	450	312
Milk	..	2476	1908	1418
<i>Total Livestock</i>	..	4144	3593	2664
Crops	..	890	788	1203
Miscellaneous	..	338	180	136
<i>Total Output</i>	..	5372	4561	4003
<i>Less Feed Purchases</i>	..	1439	1089	819
<i>Seed Purchases</i>	..	133	171	138
<i>Net Output</i>	..	3800	3301	3046
EXPENDITURE		£	£	£
Fertilizers	..	289	280	221
Rent and Rates	..	284	305	250
Labour—paid	..	940	998	1141
unpaid	..	488	195	81
Power and Machinery	..	841	725	559
Miscellaneous	..	439	323	270
<i>Total</i>	..	3281	2826	2522
MANAGEMENT AND INVEST- MENT INCOME	..	£ 519	£ 475	£ 524
<i>Add Farmer and wife's</i> <i>labour</i>	..	£ 345	£ 153	£ 43
NET FARM INCOME	..	£ 864	£ 628	£ 567
TENANT'S CAPITAL per 100 acres	..	£4534	£4028	£3801
RETURN ON CAPITAL	..	11%	12%	14%

EFFICIENCY STANDARDS

	<i>under 150</i>	<i>150-250</i>	<i>over 250</i>
	<i>acres</i>	<i>acres</i>	<i>acres</i>
System Index	129	115	100
Farm Feed Acres per 100 acres	68.8	78.9	75.6
Livestock Units per 100 acres	46.5	45.5	35.8
Percentage of Intensive Livestock	63.4	54.7	48.6
Yield Index	97	96	97
Livestock Yield Index	96	94	95
Crop Yield Index	98	113	103
Output per Productive L.S.U.	£ 90.9	£ 82.9	£ 77.3
Milk Yield per cow (galls.)	814	771	805
Milk Sales per cow	£ 125	£ 116	£ 118
Forage Acres per Grazing L.S.U.	1.69	1.97	2.11
Farm Feed Acres per L.S.U.	1.55	1.86	2.17
Adj. Feed Acres per L.S.U.	2.45	2.62	2.86
Utilised S.E. per Farm Feed Acres	16.5 cwt	15.2 cwt	13.0 cwt
Milk Sales per Adj. Feed Ac.	£ 51.1	£ 45.9	£ 42.7
Livestock Output per Adj. Feed Acre	£ 36.8	£ 31.7	£ 27.1
Work Units per Man	249	254	250
Labour Cost per 100 M.W.U.	£ 180	£ 172	£ 176
Labour & Machinery Cost per £100 Net Output	£ 60.6	£ 58.3	59.4
Power & Machinery Costs per 1000 Tractor Work Units :	£	£	£
Licences, Insurance & Repairs	136	150	123
Fuel & Electricity	142	126	103
Contractors' Charges	105	70	23
Depreciation	182	177	153
<i>Total</i>	565	523	402
Crops per 100 acres :	<i>acres</i>	<i>acres</i>	<i>acres</i>
Cereals	25	28	31
Roots	8	5	6
Hops and Fruit	—	1	1
Miscellaneous	2	1	3
Grass	65	65	59

NON-MILK-SELLING FARMS

	<i>Page</i>
1. <i>Predominantly Livestock</i>	
Mainly Sheep and/or Cattle	18
Mainly Pigs and/or Poultry	
Mixed Livestock	
2. <i>Mixed Cropping and Stocking</i>	20
With Mixed Livestock	
With Livestock Mainly Sheep and/or Cattle	
3. <i>Predominantly Arable</i>	22
With Mixed Livestock	
4. <i>Intensive Arable</i>	24
Hops and Fruit with Mixed Livestock	
Mainly Fruit	
Mainly Market Garden	

RESULTS FROM NON-MILK-SELLING FARMS

Four main groups of farms are distinguished here, within which further type sub-groups are set out. In order of profitability, the groups take the following order :—

1. Intensive arable farms producing mainly hops, fruit or market garden crops.
2. Predominantly arable farms.
3. Farms with mixed crops and livestock.
4. Predominantly livestock farms.

Within the last group, in particular, the types of livestock have an important influence on the profitability of sub-groups. As in the case of dairy farms, there is a close relationship between size of farm and type of production. Thus pig and poultry production tends to be associated with the smaller holdings and cattle and sheep production with the larger, mainly grassland, farms. Similarly, the smaller arable farms mainly produce intensive sale crops, whilst on the larger ones cereals are a more important source of income.

Type of Farm: PREDOMINANTLY LIVESTOCK

	<i>Mainly Sheep and/or Cattle</i>	<i>Mainly Pigs and/or Poultry</i>	<i>Mixed Livestock</i>
Average Acreage ..	216	71½	72
Size range ..	168-321	53-129	25-140
	<i>acres</i>	<i>acres</i>	<i>acres</i>
Number of Farms ..	5	5	8
STANDARD OUTPUT :	%	%	%
Sheep and Cattle ..	88.7	18.4	48.8
Pigs and Poultry ..	5.9	72.7	42.2
Crops ..	5.4	8.9	9.0
Total ..	100.0	100.0	100.0

Results per 100 acres

OUTPUT	£	£	£
Cattle ..	353	851	1182
Sheep and Wool ..	2043	430	668
Pigs ..	2	2523	493
Poultry and Eggs ..	150	1817	1444
<i>Total Livestock</i> ..	2548	5621	3787
Crops ..	196	638	334
Miscellaneous ..	131	309	415
<i>Total Output</i> ..	2875	6568	4536
<i>Less</i> Feed Purchases ..	596	2794	1937
Seed Purchases ..	37	139	50
<i>Net Output</i> ..	2242	3635	2549

EXPENDITURE	£	£	£
Fertilizers ..	70	208	137
Rent and Rates ..	257	293	279
Labour—paid ..	534	657	382
unpaid ..	140	815	803
Power and Machinery ..	335	905	588
Miscellaneous ..	228	425	320
<i>Total</i> ..	1564	3303	2509

MANAGEMENT AND INVESTMENT INCOME ..	£ 678	£ 332	£ 40
<i>Add</i> Farmer and wife's labour ..	£ 140	£ 704	£ 804
NET FARM INCOME ..	£ 818	£1036	£ 844
TENANT'S CAPITAL per 100 acres ..	£3166	£4530	£3813
RETURN ON CAPITAL ..	21%	7%	1%

EFFICIENCY STANDARDS

	<i>Mainly Sheep and/or Cattle</i>	<i>Mainly Pigs and/or Poultry</i>	<i>Mixed Livestock</i>
System Index	91	173	149
Farm Feed Acres per 100 acres	86.7	80.7	86.3
Livestock Units per 100 acres	70.7	66.3	71.2
Percentage of Intensive Livestock	2.1	60.5	29.3
Yield Index	79	92	69
Livestock Yield Index	78	90	69
Crop Yield Index	91	151	82
Output per Productive L.S.U. £ 37.7	£ 37.7	£ 84.9	£ 49.5
Forage Acres per Grazing L.S.U.	1.32	2.07	1.63
Farm Feed Acres per L.S.U.	1.36	1.36	1.34
Adj. Feed Acres per L.S.U.	1.88	2.60	2.09
Utilised S.E. per Farm Feed Acre	22.7 cwt	14.8 cwt	19.1 cwt
Livestock Output per Adj. Feed Acre	£ 19.8	£ 33.4	£ 23.8
Work Units per man	314	246	302
Labour Cost per 100 M.W.U. £ 165	£ 165	£ 180	£ 144
Labour and Machinery Cost per £100 Net Output	£ 44.8	£ 64.3	£ 66.6
Power and Machinery Costs per 1000 Tractor Work Units :	£	£	£
Licences, Insurance and Repairs	74	147	88
Fuel & Electricity	77	167	112
Contractors' Charges	80	158	77
Depreciation	79	178	107
<i>Total</i>	<hr/> 310 <hr/>	<hr/> 650 <hr/>	<hr/> 384 <hr/>
Crops per 100 acres	<i>acres</i>	<i>acres</i>	<i>acres</i>
Cereals	8	44	13
Roots	2	1	2
Hops and Fruit	—	—	3
Miscellaneous	—	2	2
Grass	90	53	80

Type of Farm : MIXED CROPPING & STOCKING

			Mixed Livestock	Livestock Mainly Sheep and/or Cattle
Average Acreage .. ..	..	..	186½	284
Size range .. ..	..	..	59-407 acres	69-540 acres
Number of Farms .. ..	..	..	9	7
STANDARD OUTPUT			%	%
Sheep and Cattle .. ..	..	..	34.6	63.5
Pigs and Poultry .. ..	..	..	32.9	4.8
Crops .. ..	..	..	32.5	31.7
Total .. ..	..	..	100.0	100.0
<i>Results per 100 acres</i>				
OUTPUT			£	£
Cattle .. ..	..	..	628	642
Sheep and Wool .. ..	..	..	546	1186
Pigs .. ..	..	..	513	6
Poultry and Eggs .. ..	..	..	712	86
<i>Total Livestock</i> .. ..	..	..	2399	1920
Crops .. ..	..	..	1619	1095
Miscellaneous .. ..	..	..	326	218
<i>Total Output</i> .. ..	..	..	4344	3233
<i>Less</i> Feed Purchases .. ..	..	..	855	272
Seed Purchases .. ..	..	..	173	123
<i>Net Output</i> .. ..	..	..	3316	2838
EXPENDITURE			£	£
Fertilizers .. ..	..	..	253	184
Rent and Rates .. ..	..	..	243	270
Labour—paid .. ..	..	..	729	478
unpaid .. ..	..	..	337	327
Power and Machinery .. ..	..	..	718	647
Miscellaneous .. ..	..	..	332	261
<i>Total</i> .. ..	..	..	2612	2167
MANAGEMENT AND INVESTMENT INCOME ..	..	..	£ 704	£ 671
<i>Add</i> Farmer and wife's labour .. ..	..	..	£ 290	£ 278
NET FARM INCOME .. ..	..	..	£ 994	£ 949
TENANT'S CAPITAL per 100 acres .. ..	..	..	£4334	£4032
RETURN ON CAPITAL .. ..	..	..	16%	17%

EFFICIENCY STANDARDS

	<i>Mixed Livestock</i>	<i>Livestock Mainly Sheep and/or Cattle</i>
System Index	107	78
Farm Feed Acres per 100 acres	65.9	75.9
Livestock Units per 100 acres	44.0	47.1
Percentage of Intensive Livestock	26.7	2.3
Yield Index	92	98
Livestock Yield Index	81	91
Crop Yield Index	111	111
Output per Productive L.S.U.	£ 54.8	£ 42.4
Forage Acres per Grazing L.S.U.	1.99	1.65
Farm Feed Acres per L.S.U.	1.69	1.76
Adj. Feed Acres per L.S.U.	2.22	1.98
Utilised S.E. per Farm Feed Acre	18.4 cwt	19.3 cwt
Livestock Output per Adj. Feed Acre	£ 25.5	£ 21.6
Work Units per man	256	237
Labour Cost per 100 M.W.U.	£ 170	£ 183
Labour & Machinery Cost per £100 Net Output	£ 55.6	£ 53.3
Power and Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance & Repairs	116	117
Fuel & Electricity	102	112
Contractors' Charges	56	48
Depreciation	205	249
<i>Total</i>	479	526
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	42	27
Roots	7	6
Hops & Fruit	—	—
Miscellaneous	6	2
Grass	45	65

Type of Farm : PREDOMINANTLY ARABLE

				<i>With Mixed Livestock</i>
Average Acreage	..	..	..	328½
Size range	..	..	..	127-1015 acres
Number of Farms	..	..	..	8
STANDARD OUTPUT				%
Sheep and Cattle	..	..	..	24.4
Pigs and Poultry	..	..	..	10.5
Crops	..	..	..	65.1
Total	..	..	..	100.0
				<i>Results per 100 acres</i>
OUTPUT				£
Cattle	..	..	..	230
Sheep and Wool	..	..	..	524
Pigs	..	..	..	277
Poultry and Eggs	..	..	..	78
<i>Total Livestock</i>				1109
Crops	..	..	..	3036
Miscellaneous	..	..	..	193
<i>Total Output</i>				4338
<i>Less</i> Feed Purchases	..	..	..	230
Seed Purchases	..	..	..	358
<i>Net Output</i>				3750
EXPENDITURE				£
Fertilizers	..	..	..	266
Rent and Rates	..	..	..	322
Labour—paid	..	..	..	919
unpaid	..	..	..	146
Power and Machinery	..	..	..	756
Miscellaneous	..	..	..	346
<i>Total</i>				2755
MANAGEMENT AND INVESTMENT INCOME				£ 995
<i>Add</i> Farmer and wife's labour	..	..	..	£ 139
NET FARM INCOME	..	..	..	£1134
TENANT'S CAPITAL per 100 acres	..	..	..	£3647
RETURN ON CAPITAL	..	..	..	27%

EFFICIENCY STANDARDS

With Mixed Livestock

System Index	..	..	..	95
Farm Feed Acres per 100 acres	..	..	..	47.1
Livestock Units per 100 acres	..	..	..	23.8
Percentage of Intensive Livestock	..	..	..	23.6
Yield Index	..	..	..	109
Livestock Yield Index	..	..	..	90
Crop Yield Index	..	..	..	119
Output per Productive L.S.U.	..	..	..	£ 54.4
Forage Acres per Grazing L.S.U.	..	..	..	1.97
Farm Feed Acres per L.S.U.	..	..	..	2.31
Adj. Feed Acres per L.S.U.	..	..	..	2.66
Utilised S.E. per Farm Feed Acre	..	..	..	17.7 cwt
Livestock Output per Adj. Feed Acre	..	..	..	£ 21.4
Work Units per man	..	..	..	244
Labour Cost per M.W.U.	..	..	..	£ 181
Labour & Machinery Cost per £100 Net Output	..	..	..	£ 50.4
Power & Machinery Costs per 1,000 Tractor Work Units :				£
Licences, Insurance & Repairs	..	..	..	151
Fuel & Electricity	..	..	..	106
Contractors' Charges	..	..	..	29
Depreciation	..	..	..	198
				—
<i>Total</i>	..	..	..	484
				—
Crops per 100 acres				<i>acres</i>
Cereals	..	..	..	42
Roots	..	..	..	12
Hops & Fruit	..	..	..	—
Miscellaneous	..	..	..	13
Grass	..	..	..	33

Type of Farm : INTENSIVE ARABLE

	Hops & Fruit	Fruit	Market Garden and Vegetables
Average Acreage ..	162 $\frac{3}{4}$	164 $\frac{1}{2}$	12 $\frac{1}{4}$
Size range ..	35-340 acres	44-255 acres	1 $\frac{3}{4}$ -28 acres
Number of Farms ..	9	6	4
STANDARD OUTPUT	%	%	%
Sheep and Cattle ..	21.4	24.3	—
Pigs and Poultry ..	12.8	9.2	5.6
Crops ..	65.8	66.5	94.4
Total ..	100.0	100.0	100.0
	<i>Results per 100 acres</i>		<i>Per acre</i>
OUTPUT	£	£	£
Cattle	443	283	—
Sheep and Wool ..	480	716	—
Pigs	694	610	—
Poultry and Eggs ..	194	117	—
<i>Total Livestock</i> ..	1811	1726	—
Crops	5054	4305	847
Miscellaneous ..	291	207	17
<i>Total Output</i> ..	7156	6238	864
<i>Less Feed Purchases</i> ..	820	689	2
Seed Purchases ..	228	243	18
<i>Net Output</i> ..	6108	5306	844
EXPENDITURE	£	£	£
Fertilizers	470	344	46
Rent and Rates ..	358	262	12
Labour—paid	2398	1714	238
unpaid	356	441	120
Power and Machinery ..	990	928	228
Miscellaneous	953	618	176
<i>Total</i>	5525	4307	820
MANAGEMENT AND INVESTMENT			<i>Per Acre</i>
INCOME	£ 583	£ 999	£ 24
Add Farmer and wife's labour	£ 304	£ 323	£ 120
NET FARM INCOME ..	£ 887	£1322	£ 144
TENANT'S CAPITAL per 100 acres	£4360	£4465	£ 619
RETURN ON CAPITAL ..	13%	22%	4%

EFFICIENCY STANDARDS

	<i>Hops & Fruit</i>	<i>Fruit</i>
System Index	194	163
Farm Feed Acres per 100 acres	53.9	40.8
Livestock Units per 100 acres	45.6	37.2
Percentage of Intensive Livestock	23.2	16.9
Yield Index	87	86
Livestock Yield Index	67	81
Crop Yield Index	98	94
Output per Productive L.S.U.	£ 40.1	£ 45.3
Forage Acres per Grazing L.S.U.	1.66	1.15
Farm Feed Acres per L.S.U.	1.38	1.18
Adj. Feed Acres per L.S.U.	1.92	1.74
Utilised S.E. per Farm Feed Acre	24.2 cwt	27.2 cwt
Livestock Output per Adj. Feed Acre	£ 22.7	£ 26.9
Works Units per man	318	280
Labour Cost per 100 M.W.U.	£ 147	£ 163
Labour & Machinery Cost per £100 Net Output	£ 61.3	£ 59.4
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs	86	114
Fuel and Electricity	145	133
Contractors' Charges	80	56
Depreciation	166	133
	-----	-----
<i>Total</i>	477	436
	-----	-----
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	29	32
Roots	4	7
Hops and Fruit	20	20
Miscellaneous	1	8
Grass	46	33

HIGH-PROFIT FARMS

Results per 100 acres for the 1958-59 farming year.

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2. Milk with Pigs and/or Poultry	30
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HIGH-PROFIT FARMS

Over a period of years some farms consistently produce above average profits and an examination of the reasons for this is amongst the most important aspects of comparative farm analysis. Careful selection is necessary, however, in order that only fully representative high-profit farms are chosen. Selection has been made on the following basis :—

1. Profit has been measured as the net return per £100 output after making a charge for interest on tenant's capital.
2. Farms have been selected from within type groups defined on a standard output basis.
3. The farms chosen fall within the top twenty-five per cent. of the range of profits (more on small groups) in each of the last three years.

HIGH-PROFIT MILK-SELLING FARMS

On each of the four groups of dairy farms, high profits are associated with relatively high levels of output per acre. In all cases the high-profit farms are intensively organized and produce a large volume of output by means of heavier stocking densities and somewhat greater amounts of sale crop production. (The influence of size on intensity of organization should be borne in mind where the average acreage for all farms differs from that of the high-profit group.)

With the exception of crops, yields are higher on the groups of high-profit farms. This is particularly noticeable in the case of milk sales per cow, which tend to be more than ten per cent above the general average. The Milk with Mixed Crops & Livestock group of high-profit farms is an exception to the general tendency and in this case the higher level of output per acre is mainly associated intensity of system. Furthermore, the difference in profitability, as compared with the general average, is more marked than for other types of dairy farms.

With regard to the Feed Economy, efficiency is noticeably higher on the high-profit farms. The adjusted feed acreage requirements per livestock unit are less by between ten to fifteen per cent., despite the use of proportionately greater amounts of purchased feed on the small, intensive farms with high profits.

Spending is comparatively high on farms with above average profits but it is associated with proportionately higher levels of production. Thus, for example, despite greater outlays on labour and machinery and power, a superior work performance is obtained and overall productivity is twenty per cent. above average.

Type of Farm : PREDOMINANTLY MILK

			All Farms	High-Profit Farms
Average Acreage			119 $\frac{3}{4}$	112 $\frac{3}{4}$
Size range			33-286 acres	33-203 $\frac{1}{2}$ acs
Number of Farms			24	6
STANDARD OUTPUT			%	%
Milk			73.8	72.3
Sheep and Cattle			16.7	16.9
Pigs and Poultry			5.2	5.8
Crops			4.3	5.0
Total			100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle			574	711
Sheep and Wool			29	39
Pigs			23	5
Poultry and Eggs			176	249
Milk			3929	5057
<i>Total Livestock</i>			4731	6061
Crops			203	287
Miscellaneous			261	247
<i>Total Output</i>			5195	6595
<i>Less Feed Purchases</i>			1281	1616
<i>Seed Purchases</i>			88	109
<i>Net Output</i>			3826	4870
EXPENDITURE			£	£
Fertilizers			326	372
Rent and Rates			339	396
Labour—paid			1058	1092
unpaid			429	560
Power and Machinery			729	782
Miscellaneous			442	503
<i>Total</i>			3323	3705
MANAGEMENT AND INVESTMENT INCOME			£ 503	£1165
<i>Add Farmer and wife's labour</i>			£ 337	£ 499
NET FARM INCOME			£ 840	£1664
TENANT'S CAPITAL per 100 acres			£3964	£5018
RETURN ON CAPITAL			13%	23%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	120	143
Farm Feed Acres per 100 acres	93.4	90.1
Livestock Units per 100 acres	49.9	57.6
Percentage of Intensive Livestock	68.5	69.0
Yield Index	102	114
Livestock Yield Index	102	114
Crop Yield Index	109	88
Output per Productive L.S.U.	£ 95.2	£ 106.7
Milk Yield per cow (galls.)	782	908
Milk Sales per cow	£ 122	£ 137
Forage Acres per Grazing L.S.U.	1.96	1.62
Farm Feed Acres per L.S.U.	1.98	1.56
Adj. Feed Acres per L.S.U.	2.74	2.49
Utilised S.E. per Farm Feed Acre	14.4 cwt	18.7 cwt
Milk Sales per Adj. Feed Acre	£ 45.8	£ 57.8
Livestock Output per Adj. Feed Acre	£ 35.7	£ 45.2
Work Units per man	254	266
Labour Cost per 100 M.W.U.	£ 178	£ 173
Labour and Machinery Cost per £100 Net Output	£ 59.1	£ 50.4
Power and Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs	141	162
Fuel and Electricity	149	143
Contractors' Charges	81	58
Depreciation	177	169
	<hr/>	<hr/>
<i>Total</i>	548	532
	<hr/>	<hr/>
Crops per 100 acres :	<i>acres</i>	<i>acres</i>
Cereals	10	12
Roots	4	3
Hops and Fruit	—	—
Miscellaneous	3	3
Grass	83	82

Type of Farm : MILK, PIGS AND/OR POULTRY

			All Farms	High-Profit Farms
Average Acreage .. ..	..	..	111	92 $\frac{1}{4}$
Size range .. ..	..	..	18 $\frac{1}{2}$ -282 $\frac{1}{2}$ acres	18 $\frac{1}{2}$ -211 acres
Number of Farms .. ..	..	..	20	6
STANDARD OUTPUT			%	%
Milk .. ..	..	..	46.3	38.9
Sheep and Cattle .. ..	..	..	11.0	7.0
Pigs and Poultry .. ..	..	..	37.6	47.7
Crops .. ..	..	..	5.1	6.4
Total .. ..	..	..	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle .. ..	..	..	420	496
Sheep and Wool .. ..	..	..	49	44
Pigs .. ..	..	..	1702	4079
Poultry and Eggs .. ..	..	..	1040	1422
Milk .. ..	..	..	3698	5301
<i>Total Livestock</i> .. ..	..	..	6909	11342
Crops .. ..	..	..	360	572
Miscellaneous .. ..	..	..	274	500
<i>Total Output</i> .. ..	..	..	7543	12414
<i>Less</i> Feed Purchases .. ..	..	..	3055	4966
Seed Purchases .. ..	..	..	91	79
<i>Net Output</i> .. ..	..	..	4397	7369
EXPENDITURE			£	£
Fertilizers .. ..	..	..	253	343
Rent and Rates .. ..	..	..	365	524
Labour—paid .. ..	..	..	1117	1696
unpaid .. ..	..	..	671	927
Power and Machinery .. ..	..	..	874	1262
Miscellaneous .. ..	..	..	654	1217
<i>Total</i> .. ..	..	..	3934	5969
MANAGEMENT AND INVESTMENT INCOME ..	..	..	£ 463	£1400
<i>Add</i> Farmer and wife's labour .. ..	..	..	£ 574	£ 856
NET FARM INCOME .. ..	..	..	£1037	£2256
TENANT'S CAPITAL per 100 acres .. ..	..	..	£5453	£8540
RETURN ON CAPITAL .. ..	..	..	8%	16%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	203	337
Farm Feed Acres per 100 acres ..	92.7	86.7
Livestock Units per 100 acres ..	75.4	122.0
Percentage of Intensive Livestock ..	77.5	83.9
Yield Index	92	95
Livestock Yield Index	92	95
Crop Yield Index	106	93
Output per Productive L.S.U.	£ 94.0	£ 101.3
Milk Yield per cow (galls.)	768	769
Milk Sales per cow	£ 123	£ 134
Forage Acres per Grazing L.S.U. ..	2.04	1.62
Farm Feed Acres per L.S.U.	1.55	0.97
Adj. Feed Acres per L.S.U.	2.80	2.33
Utilised S.E. per Farm Feed Acre ..	15.6 cwt	25.3 cwt
Milk Sales per Adj. Feed Acre	£ 46.3	£ 61.1
Livestock Output per Adj. Feed Acre ..	£ 34.8	£ 44.7
Work Units per man	275	280
Labour Cost per 100 M.W.U.	£ 160	£ 162
Labour & Machinery Cost per £100 Net Output	£ 66.8	£ 53.4
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs ..	136	146
Fuel and Electricity	191	237
Contractors' Charges	73	91
Depreciation	177	183
	<hr/>	<hr/>
<i>Total</i>	577	657
	<hr/>	<hr/>
Crops per 100 acres :	<i>acres</i>	<i>acres</i>
Cereals	17	18
Roots	5	4
Hops and Fruit	—	1
Miscellaneous	1	—
Grass	77	77

Type of Farm : MILK WITH ARABLE

			All Farms	High-Profit Farms
Average Acreage .. ..	..	..	342	380
Size range .. ..	..	..	67½-688 acres	115½-688 acres
Number of Farms .. ..	..	..	30	8
STANDARD OUTPUT				
Milk .. ..	..	..	% 42.3	% 39.2
Sheep and Cattle .. ..	..	..	18.3	16.0
Pigs and Poultry .. ..	..	..	3.4	1.9
Crops .. ..	..	..	36.0	42.9
Total .. ..	..	..	100.0	100.0
OUTPUT				
			£	£
Cattle .. ..	..	..	499	480
Sheep and Wool .. ..	..	..	96	166
Pigs .. ..	..	..	19	51
Poultry and Eggs .. ..	..	..	107	30
Milk .. ..	..	..	1953	2269
<i>Total Livestock</i> .. ..	..	..	2674	2996
Crops .. ..	..	..	1766	2303
Miscellaneous .. ..	..	..	235	272
<i>Total Output</i> .. ..	..	..	4675	5571
<i>Less Feed Purchases</i> .. ..	..	..	512	499
<i>Seed Purchases</i> .. ..	..	..	186	272
<i>Net Output</i> .. ..	..	..	3977	4800
EXPENDITURE				
			£	£
Fertilizers .. ..	..	..	340	436
Rent and Rates .. ..	..	..	277	293
Labour—paid .. ..	..	..	1164	1308
unpaid .. ..	..	..	122	63
Power and Machinery .. ..	..	..	737	750
Miscellaneous .. ..	..	..	376	449
<i>Total</i> .. ..	..	..	3016	3299
MANAGEMENT AND INVESTMENT INCOME				
<i>Add Farmer and wife's labour</i> .. ..	..	..	£ 961	£1501
NET FARM INCOME .. ..	..	..	£ 111	£ 60
NET FARM INCOME .. ..	..	..	£1072	£1561
TENANT'S CAPITAL per 100 acres .. ..	..	..	£3881	£4147
RETURN ON CAPITAL .. ..	..	..	25%	36%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	103	113
Farm Feed Acres per 100 acres ..	62.2	57.0
Livestock Units per 100 acres ..	31.6	32.1
Percentage of Intensive Livestock ..	54.0	53.2
Yield Index	106	115
Livestock Yield Index	100	111
Crop Yield Index	115	119
Output per Productive L.S.U.	£ 85.0	£ 93.3
Milk Yield per cow (galls.)	795	927
Milk Sales per cow	£ 119	£ 135
Forage Acres per Grazing L.S.U. ..	1.83	1.66
Farm Feed Acres per L.S.U.	2.05	1.84
Adj. Feed Acres per L.S.U.	2.54	2.34
Utilised S.E. per Farm Feed Acre ..	15.9 cwt	18.4 cwt
Milk Sales per Adj. Feed Acre	£ 49.2	£ 60.7
Livestock Output per Adj. Feed Acre ..	£ 34.6	£ 40.9
Work Units per man	242	251
Labour Cost per 100 M.W.U.	£ 184	£ 178
Labour & Machinery Cost per £100 Net Output	£ 52.1	£ 43.9
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs ..	150	123
Fuel and Electricity	128	142
Contractors' Charges	44	25
Depreciation	174	165
<i>Total</i>	496	455
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	38	44
Roots	6	6
Hops and Fruit	1	1
Miscellaneous	5	4
Grass	50	45

Type of Farm: MILK WITH MIXED CROPS AND LIVESTOCK

			<i>All Farms</i>	<i>High-Profit Farms</i>
Average Acreage .. ..	..	..	234½	197
Size range .. ..	..	67½-724 acres		67½-594 acres
Number of Farms .. ..	..	..	32	8
STANDARD OUTPUT			%	%
Milk .. ..	..	..	39.8	41.0
Sheep and Cattle .. ..	..	..	21.7	17.2
Pigs and Poultry .. ..	..	..	18.8	24.3
Crops .. ..	..	..	19.7	17.5
Total .. ..	..	..	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle .. ..	..	..	494	494
Sheep and Wool .. ..	..	..	222	206
Pigs .. ..	..	..	368	646
Poultry and Eggs .. ..	..	..	473	593
Milk .. ..	..	..	1947	2182
<i>Total Livestock</i> .. ..	..	..	3504	4121
Crops .. ..	..	..	937	927
Miscellaneous .. ..	..	..	217	353
<i>Total Output</i> .. ..	..	..	4658	5401
<i>Less</i> Feed Purchases .. ..	..	..	1123	1253
Seed Purchases .. ..	..	..	150	208
<i>Net Output</i> .. ..	..	..	3385	3940
EXPENDITURE			£	£
Fertilizers .. ..	..	..	266	316
Rent and Rates .. ..	..	..	283	297
Labour—paid .. ..	..	..	1020	959
unpaid .. ..	..	..	255	308
Power and Machinery .. ..	..	..	714	831
Miscellaneous .. ..	..	..	345	349
<i>Total</i> .. ..	..	..	2883	3060
MANAGEMENT AND INVESTMENT INCOME ..	..	..	£ 502	£ 880
<i>Add</i> Farmer and wife's labour .. ..	..	..	£ 182	£ 273
NET FARM INCOME .. ..	..	..	£ 684	£1153
TENANT'S CAPITAL per 100 acres .. ..	..	..	£4123	£4597
RETURN ON CAPITAL .. ..	..	..	12%	19%

EFFICIENCY STANDARDS

			<i>All Farms</i>	<i>High-Profit Farms</i>
System Index .. ..	..	..	115	134
Farm Feed Acres per 100 acres ..	..	..	74.8	75.1
Livestock Units per 100 acres ..	..	..	43.1	49.0
Percentage of Intensive Livestock ..	..	..	55.7	63.7
Yield Index .. ..	..	..	97	94
Livestock Yield Index .. ..	..	..	95	92
Crop Yield Index .. ..	..	..	106	102
Output per Productive L.S.U. ..	..	..	£ 83.8	£ 84.4
Milk Yield per cow (galls.) ..	..	..	794	748
Milk Sales per cow .. ..	..	..	£ 119	£ 114
Forage Acres per Grazing L.S.U. ..	..	..	1.92	1.71
Farm Feed Acres per L.S.U. ..	..	..	1.85	1.71
Adj. Feed Acres per L.S.U. ..	..	..	2.64	2.42
Utilised S.E. per Farm Feed Acre ..	..	..	15.0 cwt	17.4 cwt
Milk Sales per Adj. Feed Acre ..	..	..	£ 46.7	£ 48.1
Livestock Output per Adj. Feed Acre ..	..	..	£ 32.0	£ 35.5
Work Units per man .. ..	..	..	251	275
Labour Cost per 100 M.W.U. ..	..	..	£ 176	£ 157
Labour and Machinery Cost per £100 Net Output .. ..	..	..	£ 59.4	£ 52.3
Power and Machinery Costs per 1000 Tractor Work Units :			£	£
Licences, Insurance and Repairs ..	..	..	138	154
Fuel and Electricity .. ..	..	..	124	127
Contractors' Charges .. ..	..	..	68	56
Depreciation .. ..	..	..	171	200
<i>Total</i> .. ..	..	..	501	537
'Crops per 100 acres			<i>acres</i>	<i>acres</i>
Cereals .. ..	..	..	28	30
Roots .. ..	..	..	6	7
Hops and Fruit .. ..	..	..	1	—
Miscellaneous .. ..	..	..	2	2
Grass .. ..	..	..	63	61

NON-MILK-SELLING FARMS WITH HIGH PROFITS

Differences of size and type are more pronounced than in the case of dairy farms owing to the smaller number of records available. However, apart from Predominantly Livestock farms, high-profits are associated with high levels of output per acre and relatively greater emphasis on cash crop production. There is little difference in respect of livestock numbers between the average and above average farms although on the Predominantly Livestock and Non-Milk-Mixed farms, type of livestock is of considerable importance.

The high-profit farms from the former group are fairly large and an extensive system of production is followed, with sheep and cattle fattening in preference to pigs and poultry. Profitability in this case is due to low costs particularly with regard to feedingstuffs, fertilizers, labour, and power and machinery.

The Non-Milk-Mixed farms, with above average profits, however, emphasize pig and poultry production. Purchases of feeding stuffs are relatively large and the acreage of arable sale crops is above average. There is considerable strength in crop production since yields are good, livestock can be maintained on a small acreage of feed crops, and outlays on labour and machinery are comparatively low.

The sample of Predominantly Arable farms, though small in number, is homogeneous in type. Production is mainly concerned with cereals and cash roots and on high-profit farms the area of these is both greater and yields are better than average. Differences in respect of numbers and type of livestock are small but the Feed Economy is much more efficient.

High profitability on Intensive Arable farms is associated with a rather larger area of sale crops, a greater proportion of fruit and hops, but is apparently not linked to better crop yields or more livestock. Labour is more highly productive though there is a somewhat greater level of mechanization.

Type of Farm : PREDOMINANTLY LIVESTOCK

			<i>All Farms</i>	<i>High-Profit Farms</i>
Average Acreage .. ..	..	..	111 $\frac{3}{4}$	171 $\frac{3}{4}$
Size range .. ..	..	..	25-321 acres	129-220 acres
Number of Farms .. ..	..	..	18	5
STANDARD OUTPUT			%	%
Sheep and Cattle .. ..	..	..	51.4	68.9
Pigs and Poultry .. ..	..	..	40.6	22.8
Crops .. ..	..	..	8.0	8.3
Total .. ..	..	..	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle .. ..	..	..	860	219
Sheep and Wool .. ..	..	..	984	1864
Pigs .. ..	..	..	920	379
Poultry and Eggs .. ..	..	..	1188	650
<i>Total Livestock</i> .. ..	..	..	3952	3112
Crops .. ..	..	..	380	399
Miscellaneous .. ..	..	..	307	129
<i>Total Output</i> .. ..	..	..	4639	3640
<i>Less</i> Feed Purchases .. ..	..	..	1802	865
Seed Purchases .. ..	..	..	71	53
<i>Net Output</i> .. ..	..	..	2766	2722
EXPENDITURE			£	£
Fertilizers .. ..	..	..	138	67
Rent and Rates .. ..	..	..	277	284
Labour—paid .. ..	..	..	501	706
unpaid .. ..	..	..	622	143
Power and Machinery .. ..	..	..	605	445
Miscellaneous .. ..	..	..	324	264
<i>Total</i> .. ..	..	..	2467	1909
MANAGEMENT AND INVESTMENT INCOME ..	..	..	£ 299	£ 813
<i>Add</i> Farmer and wife's labour .. ..	..	..	£ 591	£ 143
NET FARM INCOME .. ..	..	..	£ 890	£ 956
TENANT'S CAPITAL per 100 acres .. ..	..	..	£3832	£3732
RETURN ON CAPITAL .. ..	..	..	8%	22%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	139	106
Farm Feed Acres per 100 acres ..	84.9	84.3
Livestock Units per 100 acres ..	69.7	67.1
Percentage of Intensive Livestock ..	30.4	16.4
Yield Index	78	84
Livestock Yield Index	78	83
Crop Yield Index	104	97
Output per Productive L.S.U. ..	£ 56.1	£ 50.6
Forage Acres per Grazing L.S.U. ..	1.66	1.49
Farm Feed Acres per L.S.U. ..	1.35	1.40
Adj. Feed Acres per L.S.U. ..	2.17	2.06
Utilised S.E. per Farm Feed Acre ..	18.9 cwt	20.1 cwt
Livestock Output per Adj. Feed Acre ..	£ 25.3	£ 23.7
Works Units per man	290	249
Labour Cost per 100 M.W.U. ..	£ 160	£ 177
Labour & Machinery Cost per £100 Net Output	£ 59.9	£ 46.0
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs ..	101	86
Fuel and Electricity	117	86
Contractors' Charges	100	74
Depreciation	119	132
<i>Total</i>	437	378
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	20	19
Roots	2	—
Hops and Fruit	1	—
Miscellaneous	1	2
Grass	76	79

Type of Farm : MIXED CROPPING AND LIVESTOCK

			<i>All Farms</i>	<i>High-Profit Farms</i>
Average Acreage .. ..	..	..	229 $\frac{1}{4}$	205
Size range .. ..	..	..	60-840 $\frac{1}{2}$ acres	60-407 acres
Number of Farms .. ..	..	..	16	5
STANDARD OUTPUT			%	%
Sheep and Cattle .. ..	..	..	47.3	31.6
Pigs and Poultry .. ..	..	..	20.6	32.2
Crops .. ..	..	..	32.1	36.2
Total .. ..	..	..	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle .. ..	..	..	634	524
Sheep and Wool .. ..	..	..	826	592
Pigs .. ..	..	..	291	689
Poultry and Eggs .. ..	..	..	438	558
<i>Total Livestock</i> .. ..	..	..	2189	2363
Crops .. ..	..	..	1390	2016
Miscellaneous .. ..	..	..	279	363
<i>Total Output</i> .. ..	..	..	3858	4742
<i>Less</i> Feed Purchases .. ..	..	..	600	812
Seed Purchases .. ..	..	..	151	201
<i>Net Output</i> .. ..	..	..	3107	3729
EXPENDITURE			£	£
Fertilizers .. ..	..	..	223	292
Rent and Rates .. ..	..	..	255	244
Labour—paid .. ..	..	..	619	718
unpaid .. ..	..	..	333	340
Power and Machinery .. ..	..	..	687	701
Miscellaneous .. ..	..	..	301	292
<i>Total</i> .. ..	..	..	2418	2587
MANAGEMENT AND INVESTMENT INCOME ..	..	..	£ 689	£1142
<i>Add</i> Farmer and wife's labour .. ..	..	..	£ 285	£ 256
NET FARM INCOME .. ..	..	..	£ 974	£1398
TENANT'S CAPITAL per 100 acres .. ..	..	..	£4202	£4568
RETURN ON CAPITAL .. ..	..	..	16%	25%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	95	115
Farm Feed Acres per 100 acres	70.3	58.9
Livestock Units per 100 acres	45.4	44.9
Percentage of Intensive Livestock	16.1	28.7
Yield Index	94	95
Livestock Yield Index	85	79
Crop Yield Index	111	125
Output per Productive L.S.U.	£ 49.4	£ 53.6
Forage Acres per Grazing L.S.U.	1.84	1.73
Farm Feed Acres per L.S.U.	1.72	1.43
Adj. Feed Acres per L.S.U.	2.12	1.94
Utilised S.E. per Farm Feed Acre	18.8 cwt	21.2 cwt
Livestock Output per Adj. Feed Acre	£ 23.8	£ 27.9
Work Units per man	247	271
Labour Cost per 100 M.W.U.	£ 176	£ 161
Labour & Machinery Cost per £100 Net Output	£ 54.6	£ 47.9
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs	117	90
Fuel and Electricity	106	102
Contractors' Charges	52	56
Depreciation	224	169
<i>Total</i>	499	417
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	35	50
Roots	7	8
Hops and Fruit	—	—
Miscellaneous	4	6
Grass	54	36

Type of Farm : PREDOMINANTLY ARABLE

	<i>All Farms</i>		<i>High-Profit Farms</i>	
Average Acreage	328½	392¾
Size range	127½-1015¼ acres	127½-1015¼ acres
Number of Farms	8	4
STANDARD OUTPUT			%	%
Sheep and Cattle	24.4	18.4
Pigs and Poultry	10.5	11.3
Crops	65.1	70.3
Total	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle	230	231
Sheep and Wool	524	484
Pigs	277	351
Poultry and Eggs	78	1
<i>Total Livestock</i>	1109	1067
Crops	3036	3941
Miscellaneous	193	179
<i>Total Output</i>	4338	5187
<i>Less</i> Feed Purchases	230	114
Seed Purchases	358	391
<i>Net Output</i>	3750	4682
EXPENDITURE			£	£
Fertilizers	266	267
Rent and Rates	322	334
Labour—paid	919	993
unpaid	146	197
Power and Machinery	756	844
Miscellaneous	346	341
<i>Total</i>	2755	2976
MANAGEMENT AND INVESTMENT INCOME	£ 995	£1706
Add Farmer and wife's labour	£ 139	£ 184
NET FARM INCOME	£1134	£1890
TENANT'S CAPITAL per 100 acres	£3647	£4359
RETURN ON CAPITAL	27%	39%

EFFICIENCY STANDARDS

		<i>All Farms</i>	<i>High-Profit Farms</i>
System Index .. ..	..	95	110
Farm Feed Acres per 100 acres ..	..	47.1	39.2
Livestock Units per 100 acres ..	..	23.8	21.6
Percentage of Intensive Livestock ..	..	23.6	25.5
Yield Index .. ..	..	109	116
Livestock Yield Index .. ..	..	90	89
Crop Yield Index .. ..	..	119	128
Output per Productive L.S.U. ..	..	£ 54.4	£ 57.3
Forage Acres per Grazing L.S.U. ..	..	1.97	1.14
Farm Feed Acres per L.S.U. ..	..	2.31	2.13
Adj. Feed Acres per L.S.U. ..	..	2.66	2.30
Utilised S.E. per Farm Feed Acre ..	..	17.7 cwt	20.8 cwt
Livestock Output per Adj. Feed Acre ..	..	£ 21.4	£ 25.1
Work Units per man .. ..	..	244	247
Labour Cost per 100 M.W.U. ..	..	£ 181	£ 180
Labour and Machinery Cost per £100 Net Output .. ..	..	£ 50.4	£ 43.9
Power & Machinery Costs per 1000 Tractor Work Units :		£	£
Licences, Insurance and Repairs ..	..	151	140
Fuel and Electricity .. ..	..	106	99
Contractors' Charges .. ..	..	29	18
Depreciation .. ..	..	198	211
		<hr/>	<hr/>
<i>Total</i> .. ..	..	484	468
		<hr/>	<hr/>
Crops per 100 acres ..		<i>acres</i>	<i>acres</i>
Cereals .. ..	..	42	48
Roots .. ..	..	12	18
Hops and Fruit .. ..	..	—	—
Miscellaneous .. ..	..	13	12
Grass .. ..	..	33	22

Type of Farm : INTENSIVE ARABLE

			<i>All Farms</i>	<i>High-Profit Farms</i>
Average Acreage .. ..	..	..	137	164
Size range .. ..	..	..	9-340 acres	55½-234 acres
Number of Farms .. ..	..	..	20	5
STANDARD OUTPUT			%	%
Sheep and Cattle .. ..	..	..	16.9	13.7
Pigs and Poultry .. ..	..	..	18.4	16.3
Crops .. ..	..	..	64.7	70.0
Total .. ..	..	..	100.0	100.0
			<i>Results per 100 acres</i>	
OUTPUT			£	£
Cattle .. ..	..	..	285	224
Sheep and Wool .. ..	..	..	432	622
Pigs .. ..	..	..	1215	692
Poultry and Eggs .. ..	..	..	742	1285
<i>Total Livestock</i> .. ..	..	..	2674	2823
Crops .. ..	..	..	6112	6872
Miscellaneous .. ..	..	..	279	312
<i>Total Output</i> .. ..	..	..	9065	10007
<i>Less</i> Feed Purchases .. ..	..	..	1450	1694
Seed Purchases .. ..	..	..	344	345
<i>Net Output</i> .. ..	..	..	7271	7968
EXPENDITURE			£	£
Fertilizers .. ..	..	..	436	609
Rent and Rates .. ..	..	..	458	436
Labour—paid .. ..	..	..	2624	2918
unpaid .. ..	..	..	595	201
Power and Machinery .. ..	..	..	1194	1395
Miscellaneous .. ..	..	..	1106	1142
<i>Total</i> .. ..	..	..	6413	6701
MANAGEMENT AND INVESTMENT INCOME			£	£
<i>Add</i> Farmer and wife's labour .. ..	..	..	537	167
NET FARM INCOME .. ..	..	..	£1395	£1434
TENANT'S CAPITAL per 100 acres .. ..	..	..	£4991	£4530
RETURN ON CAPITAL .. ..	..	..	17%	28%

EFFICIENCY STANDARDS

	<i>All Farms</i>	<i>High-Profit Farms</i>
System Index	238	259
Farm Feed Acres per 100 acres	40.7	37.1
Livestock Units per 100 acres	44.2	44.2
Percentage of Intensive Livestock	39.8	34.9
Yield Index	89	93
Livestock Yield Index	77	83
Crop Yield Index	99	99
Output per Productive L.S.U.	£ 59.5	£ 63.1
Forage Acres per Grazing L.S.U.	1.42	1.94
Farm Feed Acres per L.S.U.	1.06	0.89
Adj. Feed Acres per L.S.U.	2.00	2.00
Utilised S.E. per Farm Feed Acre	27.7 cwt	20.7 cwt
Livestock Output per Adj. Feed Acre	£ 29.5	£ 29.9
Work Units per man	287	362
Labour Cost per 100 M.W.U.	£ 164	£ 122
Labour & Machinery Cost per £100 Net Output	£ 61.3	£ 57.5
Power & Machinery Costs per 1000 Tractor Work Units :	£	£
Licences, Insurance and Repairs	117	130
Fuel and Electricity	140	103
Contractors' Charges	66	122
Depreciation	145	136
<i>Total</i>	468	491
Crops per 100 acres	<i>acres</i>	<i>acres</i>
Cereals	29	26
Roots	6	5
Hops and Fruit	25	39
Miscellaneous	7	2
Grass	33	28

CHANGES IN OUTPUT, EXPENDITURE AND PROFITABILITY

Results for identical samples of farms for the three years
1956-7, 1957-8 and 1958-9.

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TRENDS IN PROFITABILITY

MILK-SELLING FARMS

Results are available for the three years 1956-57 to 1958-59, for four identical groups of dairy farms totalling 97 records. Despite a trend towards lower prices for some products, profitability has tended to improve, reaching a relatively high level in 1958-59. The value of total output increased on all farm groups with cattle and crops showing the greatest gains.

On small dairy farms, particularly where pigs and poultry are important, less satisfactory results were obtained in 1958-59 than in either of the two preceding years. On these farms, costs were tending to rise more rapidly than elsewhere and there was a decline in milk production. Greater emphasis was placed, however, on pig production.

Costs have risen throughout the three-year period on all types of farms though probably at a lower rate of increase than in any similar period since the beginning of the war. Total Labour and Machinery costs, for example (with the exception of a single group of farms) have risen by less than four per cent. On the other hand, it is interesting to note that expenditure on rent has risen by between ten to seventeen per cent. over the last three years.

PREDOMINANTLY MILK

IDENTICAL SAMPLE—24 FARMS

	1956-57	1957-58	1958-59
Average Acreage	114	115 $\frac{1}{4}$	119 $\frac{3}{4}$
Size range	32 $\frac{1}{2}$ -268 acs.	33-268 acs.	33-268 acs.

Results per 100 acres

	£	£	£
OUTPUT			
Cattle	415	446	574
Sheep and Wool	43	42	29
Pigs	158	40	23
Poultry and Eggs	257	183	176
Milk	3624	3827	3929
<i>Total Livestock</i>	4497	4538	4731
Crops	202	263	203
Miscellaneous	260	279	261
<i>Total Output</i>	4959	5080	5195
<i>Less</i> Feed Purchases	1461	1339	1281
Seed Purchases	96	102	88
<i>Net Output</i>	3402	3639	3826
 EXPENDITURE			
Fertilizers	274	247	326
Rent and Rates	301	323	339
Labour—paid	1031	1037	1058
unpaid	419	430	429
Power and Machinery	724	784	729
Miscellaneous	417	455	442
<i>Total</i>	3166	3276	3323
 MANAGEMENT AND INVESTMENT			
INCOME	£ 236	£ 363	£ 503
Add Farmer and wife's labour	£ 342	£ 350	£ 337
NET FARM INCOME	£ 578	£ 713	£ 840
TENANT'S CAPITAL per 100 acres	£3719	£3838	£3964
RETURN ON CAPITAL	6%	9%	13%

MILK, PIGS AND/OR POULTRY

IDENTICAL SAMPLE—20 FARMS

	1956-57	1957-58	1958-59
Average Acreage	108½	107½	111
Size range	18½-288 acs.	18½-282½ acs.	18½-282½ acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	381	359	420
Sheep and Wool	31	13	49
Pigs	1554	1455	1702
Poultry and Eggs	1011	1066	1040
Milk	3842	3817	3698
<i>Total Livestock</i>	<u>6819</u>	<u>6710</u>	<u>6909</u>
Crops	170	298	360
Miscellaneous	285	296	274
<i>Total Output</i>	<u>7274</u>	<u>7304</u>	<u>7543</u>
<i>Less</i> Feed Purchases	3054	2975	3055
Seed Purchases	132	150	91
<i>Net Output</i>	<u>4088</u>	<u>4179</u>	<u>4397</u>

EXPENDITURE	£	£	£
Fertilizers	286	283	253
Rent and Rates	319	357	365
Labour—paid	1001	983	1117
unpaid	643	610	671
Power and Machinery	823	837	874
Miscellaneous	506	566	654
<i>Total</i>	<u>3578</u>	<u>3636</u>	<u>3934</u>

MANAGEMENT AND INVESTMENT

INCOME	£ 510	£ 543	£ 463
Add Farmer and wife's labour	£ 567	£ 547	£ 574
NET FARM INCOME	£1077	£1090	£1037
TENANT'S CAPITAL per 100 acres	£5022	£5195	£5453
RETURN ON CAPITAL	10%	10%	8%

MILK WITH ARABLE

IDENTICAL SAMPLE—26 FARMS

	1956-57	1957-58	1958-59
Average Acreage	359 $\frac{3}{4}$	360 $\frac{1}{2}$	357
Size range	60 $\frac{1}{2}$ -893 $\frac{1}{4}$ acs.	66-909 $\frac{1}{4}$ acs.	67 $\frac{1}{2}$ -898 $\frac{3}{4}$ acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	336	418	464
Sheep and Wool	54	76	84
Pigs	43	19	22
Poultry and Eggs	57	75	117
Milk	1987	1921	1941
<i>Total Livestock</i>	2477	2509	2628
Crops	1565	1441	1781
Miscellaneous	209	195	231
<i>Total Output</i>	4251	4145	4640
<i>Less</i> Feed Purchases	601	515	492
Seed Purchases	178	180	195
<i>Net Output</i>	3472	3450	3953

EXPENDITURE	£	£	£
Fertilizers	327	347	367
Rent and Rates	237	259	276
Labour—paid	1155	1142	1190
unpaid	115	103	104
Power and Machinery	731	706	735
Miscellaneous	330	361	380
<i>Total</i>	2895	2918	3052

MANAGEMENT AND INVESTMENT

INCOME	£ 577	£ 532	£ 901
<i>Add</i> Farmer and wife's labour	£ 101	£ 97	£ 99
NET FARM INCOME	£ 678	£ 629	£1000
TENANT'S CAPITAL per 100 acres	£3722	£3680	£3981
RETURN ON CAPITAL	15%	14%	23%

MILK WITH MIXED CROPS AND LIVESTOCK

IDENTICAL SAMPLE—27 FARMS

	1956-57	1957-58	1958-59
Average Acreage	215½	215¼	220¼
Size range	67½-594 acs.	67½-594 acs.	67½-724 acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	371	480	497
Sheep and Wool	217	284	258
Pigs	336	328	350
Poultry and Eggs	384	405	413
Milk	1943	1922	1947
<i>Total Livestock</i>	3251	3419	3465
Crops	666	761	879
Miscellaneous	199	244	234
<i>Total Output</i>	4116	4424	4578
Less Feed Purchases	1011	1036	1075
Seed Purchases	132	146	153
<i>Net Output</i>	2973	3242	3350

EXPENDITURE	£	£	£
Fertilizers	248	266	258
Rent and Rates	245	259	269
Labour—paid	941	928	985
unpaid	245	278	277
Power and Machinery	657	665	706
Miscellaneous	316	363	341
<i>Total</i>	2652	2759	2836

MANAGEMENT AND INVESTMENT

INCOME	£ 321	£ 483	£ 514
Add Farmer and wife's labour	£ 181	£ 184	£ 197
NET FARM INCOME	£ 502	£ 667	£ 711
TENANT'S CAPITAL per 100 acres	£3812	£3940	£4068
RETURN ON CAPITAL	8%	12%	13%

NON-MILK-SELLING FARMS

Results are available for the three years ending 1958-59 for four identical groups of farms, totalling forty-nine records. In contrast with the general rise of profitability on dairy farms in 1958-59, results were poorer than in the preceding year. The decline was due to a sharp rise in expenditure which more than offset a rise in output. Sheep output showed a fairly strong tendency to decline below the relatively high level reached in 1957-58, and there were smaller returns from pig production on two groups of farms. In addition, larger purchases of feedingstuffs tended to outweigh the appreciable rise in the value of crop production associated with the higher crop yields of the 1958 harvest.

On a small group of arable farms profits rose in 1958-59 and this was associated with an increase in output from sheep and crops and only a comparatively small rise in expenditure.

Generally speaking, however, costs tended to rise more rapidly on non-milk-selling farms than on dairy farms. Outlays on rent and sundries were higher but the most important increases were associated with labour and machinery costs which, over the three years, rose on average by twelve per cent.

PREDOMINANTLY LIVESTOCK

IDENTICAL SAMPLE—15 FARMS

	1956-57	1957-58	1958-59
Average Acreage	120½	122	122½
Size range	25-321 acs.	25-321 acs.	25-321 acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	780	830	836
Sheep and Wool	934	1204	1074
Pigs	452	462	517
Poultry and Eggs	870	1113	1090
	<hr/>	<hr/>	<hr/>
<i>Total Livestock</i>	3036	3609	3517
Crops	451	256	327
Miscellaneous	211	252	302
	<hr/>	<hr/>	<hr/>
<i>Total Output</i>	3698	4117	4146
Less Feed Purchases	1305	1318	1540
Seed Purchases	68	78	61
	<hr/>	<hr/>	<hr/>
<i>Net Output</i>	2325	2721	2545

EXPENDITURE	£	£	£
Fertilizers	88	104	114
Rent and Rates	235	254	268
Labour—paid	355	366	457
unpaid	541	518	553
Power and Machinery	542	553	549
Miscellaneous	312	293	306
	<hr/>	<hr/>	<hr/>
<i>Total</i>	2073	2088	2247

MANAGEMENT AND INVESTMENT			
INCOME	£ 252	£ 633	£ 298
Add Farmer and wife's labour	£ 541	£ 518	£ 553
NET FARM INCOME	£ 793	£1151	£ 851
TENANT'S CAPITAL per 100 acres	£3228	£3449	£3647
RETURN ON CAPITAL	8%	18%	8%

MIXED CROPPING AND STOCKING

IDENTICAL SAMPLE—10 FARMS

	1956-57	1957-58	1958-59
Average Acreage	145½	146	146
Size range .. ..	.. 59-301 acs.	.. 59-301 acs.	.. 59-301 acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	699	594	615
Sheep and Wool	486	636	502
Pigs	354	439	367
Poultry and Eggs	526	525	587
<i>Total Livestock</i>	2065	2194	2071
Crops	1156	1137	1324
Miscellaneous	229	263	317
<i>Total</i>	3450	3594	3712
<i>Less</i> Feed Purchases	630	586	695
Seed Purchases	123	144	119
<i>Net Output</i>	2697	2864	2898

EXPENDITURE	£	£	£
Fertilizers	229	213	195
Rent and Rates	210	218	220
Labour—paid	516	518	541
unpaid	426	428	412
Power and Machinery	616	672	714
Miscellaneous	249	229	282
<i>Total</i>	2246	2278	2364

MANAGEMENT AND INVESTMENT

INCOME	£ 451	£ 586	£ 534
<i>Add</i> Farmer and wife's labour	£ 323	£ 325	£ 362
NET FARM INCOME	£ 774	£ 911	£ 896
TENANT'S CAPITAL per 100 acres	£3637	£3769	£4139
RETURN ON CAPITAL .. ..	.. 12%	.. 15%	.. 13%

PREDOMINANTLY ARABLE

IDENTICAL SAMPLE—7 FARMS

	1956-57	1957-58	1958-59
Average Acreage	330	330½	350½
Size range	127½-1015¼ acs.	127½-1015¼ acs.	127½-1015¼ acs.

Results per 100 acres

OUTPUT	£	£	£
Cattle	320	239	253
Sheep and Wool	352	304	448
Pigs	246	315	316
Poultry and Eggs	50	67	89
<i>Total Livestock</i>	<hr style="width: 50%; margin: 0 auto;"/> 968	<hr style="width: 50%; margin: 0 auto;"/> 925	<hr style="width: 50%; margin: 0 auto;"/> 1106
Crops	2741	2995	3160
Miscellaneous	196	183	196
<i>Total Output</i>	<hr style="width: 50%; margin: 0 auto;"/> 3905	<hr style="width: 50%; margin: 0 auto;"/> 4103	<hr style="width: 50%; margin: 0 auto;"/> 4462
<i>Less</i> Feed Purchases	223	244	237
Seed Purchases	284	339	295
<i>Net Output</i>	<hr style="width: 50%; margin: 0 auto;"/> 3398	<hr style="width: 50%; margin: 0 auto;"/> 3520	<hr style="width: 50%; margin: 0 auto;"/> 3930

EXPENDITURE	£	£	£
Fertilizers	308	394	277
Rent and Rates	269	280	311
Labour—paid	797	874	932
unpaid	155	155	159
Power and Machinery	702	729	795
Miscellaneous	274	297	353
<i>Total</i>	<hr style="width: 50%; margin: 0 auto;"/> 2505	<hr style="width: 50%; margin: 0 auto;"/> 2729	<hr style="width: 50%; margin: 0 auto;"/> 2827

MANAGEMENT AND INVESTMENT

INCOME	£ 893	£ 791	£1103
Add Farmer and wife's labour	£ 148	£ 148	£ 151
NET FARM INCOME	£1041	£ 939	£1254
TENANT'S CAPITAL per 100 acres	£2993	£3263	£3652
RETURN ON CAPITAL	30%	24%	30%

INTENSIVE ARABLE

IDENTICAL SAMPLE—17 FARMS

		1956-57	1957-58	1958-59
Average Acreage		127½	126½	128½
Size range		35½-246½ acs.	35½-248 acs.	35½-255½ acs.

Results per 100 acres

OUTPUT		£	£	£
Cattle		200	356	298
Sheep and Wool		386	547	448
Pigs		1538	1574	1431
Poultry and Eggs		520	625	606
		<hr/>	<hr/>	<hr/>
<i>Total Livestock</i>		2644	3102	2783
Crops		4377	4950	5451
Miscellaneous		388	348	288
		<hr/>	<hr/>	<hr/>
<i>Total Output</i>		7409	8400	8522
Less Feed Purchases		1399	1469	1481
Seed Purchases		282	291	319
		<hr/>	<hr/>	<hr/>
<i>Net Output</i>		5728	6640	6722

EXPENDITURE		£	£	£
Fertilizers		399	420	420
Rent and Rates		355	386	387
Labour—paid		2264	2398	2605
unpaid		434	440	442
Power and Machinery		1019	1054	1091
Miscellaneous		721	802	904
		<hr/>	<hr/>	<hr/>
<i>Total</i>		5192	5500	5849

MANAGEMENT AND INVESTMENT

INCOME		£ 536	£1140	£ 873
<i>Add Farmer and wife's labour</i>		£ 373	£ 376	£ 377
NET FARM INCOME		£ 909	£1516	£1250
TENANT'S CAPITAL per 100 acres		£4579	£4758	£5040
RETURN ON CAPITAL		12%	24%	17%

AVERAGE CROP YIELDS PER ACRE

<i>Harvest Year</i>	ALL FARMS				
	<i>Wheat</i> cwt	<i>Barley</i> cwt	<i>Oats</i> cwt	<i>Mixed Corn</i> cwt	<i>Potatoes</i> tons
1956	23	22 $\frac{3}{4}$	19	19	10 $\frac{1}{2}$
1957	24 $\frac{1}{2}$	20 $\frac{1}{4}$	18 $\frac{1}{4}$	20 $\frac{1}{2}$	7 $\frac{1}{2}$
1958	24	22 $\frac{1}{2}$	19 $\frac{1}{4}$	20 $\frac{1}{2}$	6 $\frac{3}{4}$

HIGH-PROFIT FARMS					
1956	26	26 $\frac{1}{2}$	21	—	8 $\frac{1}{4}$
1957	28	22 $\frac{1}{2}$	19 $\frac{1}{2}$	—	7 $\frac{1}{2}$
1958	26	23	19 $\frac{1}{4}$	—	7 $\frac{3}{4}$

OUTPUT PER LIVESTOCK UNIT

<i>Year</i>	ALL FARMS				
	<i>Cattle</i> £	<i>Sheep & Wool</i> £	<i>Pigs</i> £	<i>Poultry & Eggs</i> £	<i>Milk Sales per Cow</i> £
1956-7	15.4	29.4	110.2	146.3	124.0
1957-8	18.2	36.1	105.3	109.4	118.6
1958-9	20.2	32.6	89.5	120.4	118.8

HIGH-PROFIT FARMS					
1956-7	19.2	32.1	114.5	163.2	134.7
1957-8	21.2	36.3	109.8	127.6	130.3
1958-9	20.4	35.0	91.7	122.9	129.1

FARM CLASSIFICATION

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THE ECONOMIC CLASSIFICATION OF FARMS

The validity of the comparative method of farm management analysis, now widely used, is largely dependent upon the accurate classification of farms of various types and sizes. Essentially, the object is to obtain standards of performance for groups of farms which use basically similar kinds and quantities of resources and enjoy similar production opportunities.

Since some inputs may be used in several enterprises and produce joint products it is difficult to measure their use adequately and, therefore, to classify farms by this means. Furthermore, only a very limited number of farms could readily provide the information necessary for such a classification. It has been argued that since actual farm output is an expression of the use of resources, and is more readily measurable, a system of classification could be based upon it. However, in practice there are difficulties since the actual output of a farm may be distorted by chance fluctuations in yields or prices, or by an unusual degree of efficiency.

If a computed standard farm output is used for classification purposes instead of the actual output many difficulties can be overcome. Such an approach provides a useful economic measure of what a given farm business can normally be expected to produce from given resources. It is also advantageous where emphasis is placed upon the compilation of reconciled and highly accurate farm records, since it ensures that the best use is made of the comparatively small number of results through their classification into economically homogeneous groups. Finally, the method is particularly well suited to areas of great farming diversity, such as Kent, where attempts to produce 'standards' for type of farming areas are probably of little value.

It has been found that classification on a standard output basis does, however, draw together farms similar in size and type operating under similar soil conditions. Thus dairy farms with over 150 acres, falling into the Milk with Arable group, are situated, almost invariably, on the more fertile soils such as are to be found in East Kent and the Chichester Plain. Similarly, most dairy farms with pigs and/or poultry are well under 100 acres in size and they tend to be located on more difficult soils, such as are typical of the Weald.

METHOD OF CLASSIFICATION

The Standard Output of a farm, which is calculated for the preparation of Indicators of Efficiency, (see page 67) is also used for classification purposes.

Classification *by type* is according to the proportion of standard output arising from the following farming activities :—

Proportion of Standard Output from :

Grazing Livestock		%
Intensive—Dairy Cows		
Extensive—Other Cattle and/or Sheep ..		
Non-Grazing Livestock		
Intensive—Pigs and/or Poultry		
		—
	<i>Total Livestock</i>	
Sale Crops		
Intensive—Hops, Fruit and/or Market Garden		
Extensive—Cereals and/or Corn, Roots ..		
		—
	<i>Total Crops</i>	
		—
		100
		—

The procedure for classification is set out in the following tables:

Farms should be classified by reference to the tables indicated below :—

1.	ALL MILK-SELLING FARMS 	Table I	Page 62
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2. ALL OTHER FARMS :—

With Hops, Fruit and/or Market Garden Crops	Intensive Arable	V	64
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Standard Output from :—	% Total			
Crops	over 45	Predominantly Arable	II	62
Livestock	55-75	Mixed Cropping & Stocking	III	63
Livestock	over 75	Predominantly Livestock	IV	63

TABLE I

ALL MILK-SELLING FARMS

<i>Percentage Total Standard Output</i>			<i>Type of Farm</i>	<i>Page</i>
<i>Milk</i>	<i>Pigs &/or Poultry</i>	<i>Crops*</i>		
Over 60	under 10	under 10	Predominantly Milk	8
20—60	under 10	over 20	Milk with Arable	12
20—60	over 20	under 15	Milk with Pigs and/or Poultry	10
Other Milk-Selling Farms			Milk with Mixed Crops and Livestock	14

* *Hops, Fruit and/or Market Garden Crops under 5% total farm acreage.*

TABLE II

PREDOMINANTLY ARABLE FARMS

Over 45% Total Standard Output from Crops*

<i>Percentage Total Standard Output</i>			<i>Type of Farm</i>	<i>Page</i>
<i>All Livestock</i>	<i>Sheep &/or Cattle</i>	<i>Pigs &/or Poultry</i>		
15—55	over 15	under 10	Arable with Sheep and/or Cattle	—†
15—55	over 10	over 10	Arable with Mixed Livestock	22
15—55	under 10	over 15	Arable with Pigs and/or Poultry	—†
under 20	under 10	under 10	Predominantly Arable	—†

* *Hops, Fruit and/or Market Garden Crops under 5% Total Acreage.*

† *Insufficient records to provide averages.*

TABLE III MIXED CROPPING AND STOCKING FARMS

55 to 75% Total Standard Output from Livestock

Percentage Total Standard Output			Type of Farm	Page
All Livestock	Sheep &/or Cattle	Pigs &/or Poultry		
55—75	15—50	15—50	Mixed Cropping and Stocking	20
55—75	40—60	under 20	Mixed with Sheep and/or Cattle	20
55—75	under 20	40—60	Mixed with Pigs and/or Poultry	—†

† Insufficient records to provide averages.

TABLE IV PREDOMINANTLY LIVESTOCK FARMS

Over 75% Total Standard Output from Livestock.

Percentage Total Standard Output		Type of Farm	Page
Sheep &/or Cattle	Pigs &/or Poultry		
over 65	under 35	Livestock mainly Sheep &/or Cattle	18
under 35	over 65	Livestock mainly Pigs &/or Poultry	18
35—65	35—65	Mixed Livestock	18

SIZE OF FARM BUSINESS

The comparative results, where possible, are stratified according to size. This has been done on the basis of total acreage of crops and grass, despite the shortcomings of the latter as a measure of size of business. Farm acreage is, however, universally used as a measure of size and within type-groups of farms it does usually bear a close relationship to intensity of production. Furthermore, in many cases acreage is a factor limiting the size of the farm output.

TABLE V

INTENSIVE ARABLE FARMS

Over 45% Total Standard Output from Crops

<i>Intensive Crops :—</i>	<i>Percentage Total Standard Output</i>			<i>Type of Farm</i>	<i>Page</i>
	<i>All Livestock</i>	<i>Cattle &/or Sheep</i>	<i>Pigs &/or Poultry</i>		
Hops and Fruit over 5% total acreage	15—55	under 40	under 40	Hops and Fruit with Mixed Livestock	24
Market Garden Crops over 5% total acreage	under 15			Market Gardening	24
Fruit over 10% total acreage	15—55	under 40	under 40	Fruit with Mixed Livestock	—*
	15—55	under 10	10—55	Fruit with Pigs and/or Poultry	—*
	under 15			Fruit	24

* *Insufficient records to provide averages.*

FARM BUSINESS ANALYSIS

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THE PREPARATION OF RESULTS

The method of preparing financial and physical information for analysis and comparison has been given in some detail in publications such as "The Farm as a Business" (H.M.S.O.). Little needs to be said about the organisation of financial information but experience at Wye College has shown that careful preparation and reconciliation of physical data, such as feed use, crop acreages and livestock numbers, is an essential process. In addition to giving details of method, the factors used to calculate standard output and work unit requirements, etc., are set out in order to indicate the factors considered appropriate for use in South-East England. A further purpose in discussing the calculation of standard output is to assist in the accurate classification of farms for purposes of comparative analysis.

FINANCIAL RESULTS

In order to provide results suitable for comparison the following adjustments should be made to the financial accounts.

1. Landlord's expenses and *all* interest charges should be omitted.
2. A rental charge should be made on owner-occupied farms and a charge should be included for all unpaid *manual* labour.
3. Details of output should replace sales :—

$$\text{Output} = (\text{Sales plus Closing Valuation}) \text{ less } (\text{Opening Valuation.})$$
 (In the case of Livestock, purchases should also be deducted from sales).
4. Purchases of Fertilizers, Seeds, Feedingstuffs and Stores should be adjusted for valuation changes :—

$$\text{Expenditure} = (\text{Purchases plus Opening Valuation}) \text{ less } (\text{Closing Valuation}).$$
5. The following items of output and expenditure should be prepared :—

<i>Output</i>	<i>Expenditure</i>
Cattle	Feedingstuffs
Sheep and Wool	Seeds
Pigs	Fertilizers
Poultry and Eggs	Rent and Rates
Milk	Labour—paid
Total Livestock Output	unpaid
Crops	Power and Machinery
Sundries	Sundries
Total Output	Total Expenditure
6. Net Output is obtained by deducting expenditure on Seeds and Feedingstuffs from Total Output.

8. Profit or Management and Investment Income is the difference between Total Output and Total Expenditure. Thus defined, Profit is the sum available to remunerate the farmer for his managerial services and pay interest on all the tenant's farming capital.

PHYSICAL AND ECONOMIC DATA

In addition to financial results, economic data is required in the form of Efficiency Standards. These are prepared from the following information :—

1. Standard Output of the Farm.
2. Livestock Units.
3. Acreages of Feed Crops.
4. Starch Equivalent Requirements of Livestock.
5. Man and Tractor Work Requirements.

THE STANDARD OUTPUT OF THE FARM

Standard Output indicates the estimated value of the output arising from the stocking and cropping of the farm assuming average physical yields and prices. In order to calculate standard output of crops, adjustments have to be made to the acreages of the latter since crop years do not necessarily coincide with accounting years. For this reason sales of crops, and stocks of crop products in the opening and closing inventories, should be converted into acreage terms as follows :—

ACREAGE EQUIVALENT

$$\text{Type of Crop.} \quad \text{Sales} + \frac{\text{Closing Valuation}}{\text{Valuation}} - \frac{\text{Opening Valuation}}{\text{Valuation}} = \frac{\text{Output}}{\text{Acres}}$$

$$\text{Output Acres} \times \text{Standard Output Factor} = \text{Standard Output of Crops}$$

The standard output factors for crops are given on page 76. It should be noted that where the Opening Valuation Acreage of a crop exceeds the combined sales and closing valuation acreage, both a negative output acreage and standard output will result. It should also be noted that since the output factors for barley and oats do not include the deficiency payment element, the actual receipts for these deficiency payments should be included in the total standard output of crops.

The standard output of Livestock is calculated from the average number of livestock, using the factors given on page 77. The average numbers of stock, such as cows, ewes, sows, etc., should be based upon details contained with opening and closing valuation supplemented, where possible, from other sources, such as agricultural census returns.

In the case of pigs, other than sows and boars, the following calculation should be made of 'other pig units.'

	<i>Produced</i>	<i>Pig Units</i>
Heavy Hogs & Gilts	x 0.6	.....
Baconers	x 0.5	.....
Porkers	x 0.3	.....
*Stores	x 0.2	.....
	
	Total	.....

*The number of store pigs produced should be adjusted for changes in valuation :—

$$\text{No. produced} = (\text{No. sold} + \text{transferred out} + \text{Closing Valuation}) - (\text{Opening Valuation No.})$$

It is also necessary to take account of changes in poultry numbers and the average number of hens should take account of those in lay for only part of the year :—

Hens in lay at beginning of year *less* culls

$$\text{.....} \times \frac{\text{---}}{12} \text{ months in lay} =$$

Pullets into lay during year *less* culls

$$\text{.....} \times \frac{\text{---}}{12} \text{ months in lay} =$$

Average number of layers

In the case of 'other poultry,' the number of birds produced should be converted into "Other Poultry Units" as follows :—

	<i>Numbers</i>	<i>Other</i>
	<i>Hatched or Purchased</i>	<i>Poultry Units</i>
Day-Old Chicks, etc., reared 5 months	x 0.6	.....
Capons, etc. " 4 "	x 0.5	.....
Broilers, etc. " 3 "	x 0.4	.....
Pullets, etc. " 2 " or less.....	x 0.2	.....
Turkeys	x 2.0	.....
	
	Total	.....

Allowance should be made for part reared birds listed in the opening or closing valuations.

LIVESTOCK UNITS

The number of livestock units may be determined from the average numbers of animals, using the factors given on page 77. In order to differentiate between the total number of livestock units and the number of *productive* livestock units, male breeding animals and horses should be deducted.

ACREAGES OF FEED CROPS

The area of home-grown feed crops (Farm Feed Acres) is the total area of crops and grass, less that devoted to sale crops, and adjusted for the average equivalent of crops in stock at the beginning and end of the accounting period. The calculation is readily made by deducting (or adding if negative), the Total Output Acreage previously calculated (page 67) from the total area of crops and grass :—

	<i>Acres</i>
Total area of crops and grass	
less Total output acres (page 67)	

<i>Farm Feed Acreage</i>	_____

The area of Forage Crops and Grass may be determined by deducting from the Farm Feed Acreage the area of cereals fed to livestock.

	<i>Acres</i>
Total area of <i>all</i> cereals	
less Output acreage of <i>all</i> cereals	

Feed Cereal Acreage	_____

Where the output acreage of cereals is negative it should be added to the area grown. The Forage Acreage can then be determined as follows :—

	<i>Acres</i>
Farm Feed Acreage	
less Feed Cereal Acreage	

<i>Acreage of Forage and Grass</i>	_____

Finally, the Adjusted Feed Acreage should be calculated. This is done by converting the quantity of purchased feed used into an acreage equivalent and adding it to the Farm Feed Acreage.

<i>Purchased Feed</i>	<i>* Tons Used</i>	<i>Acreage</i>
Concentrates	..... x 1	.....
Hay	..... x $\frac{1}{2}$	.....
Wet Grains	..... x $\frac{1}{4}$	.....
etc.		.....
Total Acreage Equivalent of Purchased Feed		
<i>Add Farm Feed Acreage</i> ..		
.....		
<i>Adjusted Feed Acreage</i>		
.....		

$$* \text{ Tons Used} = (\text{Opening Stocks} + \text{Purchases}) - \text{Closing Stocks}$$

STARCH EQUIVALENT REQUIREMENTS OF LIVESTOCK

The requirements of starch equivalent can be calculated from the average numbers of livestock, previously ascertained, by using the factors given on page 77. The amount of starch equivalent estimated to have been obtained from home-grown feed crops may be calculated by deducting the starch contained in purchased feed, as follows :—

	<i>Cwt</i>
Total Starch Equivalent required ..	
<i>Tons used</i>	
Concentrates	x 14
Hay	x 6
Wet Grains	x 3
etc.	
<i>deduct Total S.E. in purchased feed</i>	
.....	
Home-grown S.E. utilised	
.....	

MAN AND TRACTOR WORK REQUIREMENTS

The estimates of man and tractor work requirements are based on the assumption that average amounts of time suffice to grow an acre of a crop or tend an animal for a year. The suggested factors are listed on pages 76 and 77. In the case of crops the calculations should be related to the actual work acreage, which may exceed the area of crops and grass, by taking into account catch crops and second cuts of hay, etc. An allowance of 15%, to cover general overhead work, should be added to the total of crop and livestock work requirements.

EFFICIENCY STANDARDS

With the information thus prepared, a selected range of efficiency standards may be calculated for use in the first stage of the farm business analysis. Further indicators may subsequently be prepared as the need for particular pieces of supplementary evidence becomes apparent.

In the first phase of analysis, four groups of standards are examined which throw light upon the following main aspects of the business structure and performance :—

- (a) System and Organisation
- (b) Yields
- (c) The Feed Economy
- (d) Labour and Machinery Use.

Details of the calculation of the basic efficiency standards are given on pages 74 and 75.

System or Organization Indicators

An unsatisfactory farm profit may be the consequence of an inadequate output, excessive expenditure, or a combination of both. If comparative results show the output to be low, the cause may lie in either the intensity of the farming system, in the yields obtained, or in a combination of both. (Yield, in the economic sense, includes both physical yields and produce sale prices).

The influence of the existing pattern of cropping and stocking of a farm on the level of output may be investigated by means of the System Index. If average physical and financial yields are used to replace the yields and prices actually obtained the 'intensity' of the farming system can be compared with the average or standard for a group of similar farms. A relatively low System Index may be economically justifiable where, for example, the level of expenditure is also low, or where shortage of capital is a factor limiting investment in crops and livestock. However, a low System Index may be associated with either :

- (a) Fewer enterprises than average, or
- (b) Enterprises of smaller than average size, or
- (c) Enterprises of a relatively extensive nature (low output)
or
- (d) A combination of the above.

In order to check the position regarding the extent or intensity of sale and feed crop production and livestock production, further standards are needed. These include indicators such as Farm Feed Acres per 100 acres, Livestock Units per 100 acres and Percentage of Intensive Livestock. (Crop and Livestock System Indices may be calculated if necessary).

Indicators of Yield

Yield is the factor, other than intensity of system, which determines what level of output will be obtained on a given farm. The preparation of indexes of yields is often necessary because few farmers know accurately the physical yields of their crops and livestock. Nor can they easily make full allowances for the prices received for sale products. The overall position regarding yields can be measured by preparing an index of all yields and comparing this with the standard for similar farms.

Where a low yield index occurs it may be due to one or more of the following factors :—

- (a) Below average crop yields,
- (b) Below average livestock yields,
- (c) Loss of nutrients from home-grown foodstuffs during conservation or utilization,
- (d) Below average quality sale products,
- (e) Unfavourable prices for sale products.

In order to trace the cause of poor results further it may be necessary to consider other indicators of efficiency, such as Crop or Livestock Yield Indexes, Output per Livestock Unit, Milk Yield and Milk Sales per cow, etc.

The Feed Economy

On farms where livestock are at all important it is essential to consider the efficiency of feed production and utilisation. A number of efficiency standards may be calculated of which the most important is Livestock Output per Adjusted Feed Acre. A comparatively low level of output is acceptable where it can be demonstrated that a higher rate would increase purchased and home-grown feed costs disproportionately. If Output per Adjusted Feed Acre is low this may be associated with :—

- (a) A low level of output per livestock unit (see above),
- (b) Above average outlay on purchased feed,
- (c) Inefficient production, conservation or utilization of home-grown feed.

Further standards, such as Forage Acres per Grazing Livestock Unit, Farm Feed Acres per Livestock Unit, and Utilised Starch Equivalent per Farm Feed Acre are means of gauging the efficiency of home-grown feed production and utilization. On dairy farms too, Milk Sales per Adjusted Feed Acre may be a useful indicator of the conversion ability of dairy stock.

Labour and Machinery Use

The measurement of the efficiency of labour and machinery use is obstructed by the difficulty of obtaining quantitative data relating to the influence of building and equipment, etc., on production. However, the relationship between output and the cost of labour and machinery services provides a basis for analysis. If Labour and Machinery Costs are high per £100 Net Output, this may be associated with :—

- (a) A low level of Net Output (see above),
- (b) Excessive numbers of workers and amount of equipment,
- (c) Expensive labour and machinery,
- (d) Inadequate buildings, equipment or machinery,
- (e) Inefficient methods and work routines.

Reference to Labour Cost per 100 Man Work Units will indicate whether payments are high relative to the estimated amount of productive work required. Similar evidence may be prepared with respect to mechanical services (Power and Machinery Costs per 1,000 Tractor work Units).

LIST OF EFFICIENCY STANDARDS

1. Farm System or Organization

System Index	...	...	=	$\frac{\text{Standard Output of Crops and Livestock}}{\text{Acres of Crops and Grass} \times 40} \times \frac{100}{1}$
Livestock System Index	...		=	$\frac{\text{Standard Output of Livestock}}{\text{Adjusted Feed Acres} \times 30} \times \frac{100}{1}$
Crop System Index	...	...	=	$\frac{\text{Standard Output of Crops}}{\text{Crop Output Acres} \times 40} \times \frac{100}{1}$
Farm Feed Acres per 100 acres			=	$\frac{\text{Farm Feed Acres}}{\text{Acres of Crops and Grass}} \times \frac{100}{1}$
Livestock Units per 100 acres			=	$\frac{\text{Total Livestock Units}}{\text{Acres of Crops and Grass}} \times \frac{100}{1}$
Percentage of Intensive Livestock			=	$\frac{\text{Pig, Poultry, Dairy Cow Livestock Units}}{\text{Total Productive Livestock Units}} \times \frac{100}{1}$

2. Yields

Index of all Yields	...	...	=	$\frac{\text{Total Farm Output}}{\text{Total Standard Output}} \times \frac{100}{1}$
Crop Yield Index	...	...	=	$\frac{\text{Total Crop Output}}{\text{Standard Output of Crops}} \times \frac{100}{1}$
Livestock Yield Index	...		=	$\frac{\text{Total Livestock Output}}{\text{Standard Output of Livestock}} \times \frac{100}{1}$
Output per Livestock Unit	...		=	$\frac{\text{Total Livestock Output}}{\text{Total Productive Livestock Units}}$
Milk Yield per Cow	...		=	$\frac{\text{Total Gallons Produced}}{\text{Average Number of Cows in herd}}$
Milk Sales per Cow	...		=	$\frac{\text{Total Value of Milk Sold}}{\text{Average number of Cows in herd}}$

3. The Feed Economy

Livestock Output per Adjusted Feed Acre	=	$\frac{\text{Total Livestock Output}}{\text{Adjusted Feed Acres}}$
Adjusted Feed Acres per Livestock Unit	=	$\frac{\text{Adjusted Feed Acres}}{\text{Total Livestock Units}}$
Farm Feed Acres per Livestock Unit	=	$\frac{\text{Farm Feed Acres}}{\text{Total Livestock Units}}$
Forage Acres per Grazing Livestock Unit	=	$\frac{\text{Farm Feed Acres less Feed Cereals Acs.}}{\text{Total Grazing Livestock Units}}$
Utilized Starch Equivalent per Farm Feed Acre	=	$\frac{\text{Total Utilized Starch Equivalent (cwt)}}{\text{Farm Feed Acres}}$
Milk Sales per Adjusted Feed Acre	=	$\frac{\text{Milk Sales per cow}}{\text{Adjusted Feed Acres per Livestock Unit}}$

4. Labour and Machinery Use

Labour & Machinery Cost per £100 Net Output	=	$\frac{\text{Total Cost of Labour and Machinery}}{\text{Total Net Output}}$	x	$\frac{100}{1}$
Labour Cost per 100 man work units	=	$\frac{\text{Total Cost of Labour}}{\text{Total Man Work Units}}$	x	$\frac{100}{1}$
Power & Machinery Costs* per 1,000 Tractor Units	=	$\frac{\text{Total Power & Machinery Costs}}{\text{Total Tractor Units}}$	x	$\frac{1000}{1}$

* The Structure of the total can also be calculated i.e.

Repairs, Renewals, Taxes and Licences per 1000 Tractor Units				
Fuel & Electricity	..	..	..	..
Contractors' Charges	..	..	..	..
Depreciation	..	..	..	..

**FACTORS FOR CALCULATING STANDARD OUTPUTS OF CROPS, AND
MAN AND TRACTOR WORK UNIT REQUIREMENTS.**

Per Acre				
<i>Type of Crop</i>	<i>Standard Output</i>	<i>Man Work Units</i>	<i>Tractor Units</i>	
	£			
Cereals & Pulse				
Wheat—combined	35	2*	12	
Barley—Combined	25	2*	12	
Beans, Oats, Mixed Corn	25	2*	12	
Peas—canning	50	2½	12	
„ threshing	40	4	12	
Roots				
Potatoes	110	20	35	
Sugar Beet	75	18	35	
Feed Roots—cut	20	13	35	
„ „ folded	20	3	12	
Forage—folded	5	2	3	
Bare Fallow	—	1	8	
Vegetables and Market Garden				
Brassicas	150	25	13	
Salad Crops	500	90	?	
Tomatoes—outdoor	600	35	?	
Peas—picking	150	35	10	
Runner Beans	250	70	70	
Sale Roots	110	20	15	
Hops and Fruit				
Hops—machine picked	325	60	160	
„ hand picked	350	100	55	
Top Fruit—dessert	250	45	30	
„ „ culinary	150	38	30	
Strawberries	300	40	20	
Raspberries, Gooseberries	175	40	20	
Grass				
Hay and Silage—1st cut	10	2	9	
„ „ „ 2nd cut	10	1	5	
Grass Seed	40	3	12	
Pasture	10	½	3	

* Where cereals are cut by binder 4 Man Work Units are required per acre.

**FACTORS FOR CALCULATING STANDARD OUTPUTS OF LIVESTOCK,
LIVESTOCK UNITS, STARCH EQUIVALENT REQUIREMENTS AND
MAN AND TRACTOR WORK UNIT REQUIREMENTS**

				Per Head				
<i>Class of Livestock</i>				<i>Standard Output</i>	<i>Livestock Units</i>	<i>Starch Equiv. Requirements</i>	<i>Man Work Units</i>	<i>Tractor Units</i>
				£		cwt		
Cattle								
Beef Cows	...	...	30	1	22	35	7
Dairy Cows—parlour milked	...	...	110	1	22	12	8
cowshed milked	...	...	110	1	22	18	8
Bulls	...	...	—	1	22	3	7
Other Cattle—over 2 years old	...	...	30	0.8	27	3	7
1 to 2 years old	...	...	30	0.6	20	3	5
under 1 year old	...	...	30	0.4	13	4.5	3
Sheep								
Kent Ewes	...	...	8	0.25	9	1	1.5
Other Ewes	...	...	10	0.25	9	1	1.5
Rams	...	...	—	0.1	4	1	1
Other Sheep over 6 months	...	...	6	0.1	4	0.3	1
Pigs								
Sows	...	...	70	0.5	17	6	2.5
Boars	...	...	—	0.25	10	2	0.5
Other Pig Units	...	...	22	0.3	11	1.5	0.8
Poultry								
Hens	...	...	2	0.02	0.7	0.25	0.04
Other Poultry Units	...	...	1	0.008	0.2	0.25	0.04
Horses	...	...	—	1	22	10	—
Milk per gallon produced	...	...	—	—	0.023	—	—