

ORGANIC FARM INCOMES IN ENGLAND AND WALES 1998/99

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Nicolas Lampkin**

September 2001

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INSTITUTE OF RURAL STUDIES**

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Report of work for the
Ministry of Agriculture, Fisheries and Food
Contract ref.: OF 0190

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September 2001

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Executive Summary

This report presents results from research work carried out for the Ministry of Agriculture, Fisheries and Food (MAFF) on the financial performance of organic farms in 1998/99. The aim of the research was to assess the financial performance of organic farms differentiated by farm type, in order to inform MAFF policy-making with respect to organic farming, and to provide a basis for assessments by farmers, advisers and other interested parties of the farm-level implications of conversion to and continued organic farming. To provide an idea of the trends over time, where possible data for continuous samples of farms are presented for 1997/98 and 1998/99.

The specific objectives were to extend the previous project (OF0125, covering 1995/96 to 1997/98) to collect and collate data on the financial performance of organic farms, differentiated by farm type¹. This was achieved through the collation of financial data collected under three different MAFF-funded research projects supplemented by data collected on other farm types. The samples of organic farms are small because of the limited number of organic holdings over 8 ESU (European Size Units) with identifiable holding numbers in 1996, when the previous study was started. As the sample is small there is limitation on how the results may be extrapolated to the wider population of organic farms, especially as the structure and objectives of those converting to organic production in the late 1990s may be different from those that converted in the 1970s and 1980s.

Detailed financial input, output, income, liabilities and assets and some physical performance measures are presented for 1998/99. Where an identical sample of five farms is available, data are presented for 1997/98 and 1998/99 for the sample.

The organic farm samples are so small that outliers (especially larger farms) have a large influence on the average. If the samples were larger, general trends would be more apparent and less influenced by individual farms; despite this, some explanation has been attempted of trends and changes in inputs, outputs and incomes. However, great care must be taken in extrapolating results.

Of those farm types for which a continuous identical sample of five farms was available, Net Farm Incomes (NFI) increased for cropping (£281/ha) and dairy farms (£487/ha) in 1998/99 compared with 1997/98; in both cases outputs as well as inputs increased between years. Mixed farms showed an average reduction in outputs and increase in inputs, lowering the average NFI to £15/ha in 1998/99. The five lowland cattle and sheep farms improved a negative NFI of £161/ha in 1997/98 to a positive £7/ha in 1998/99 through an increase in livestock outputs with a similar level of inputs to that of 1997/98.

Due to the high level of farmer and spouse labour on horticultural holdings, the average Management and Investment Income (MII) of the sample was negative, but the average NFI was £1,836/ha. On four holdings, 1998/99 average outputs were 92%, and inputs were 97% of the previous year, resulting in an average NFI in 1998/99 for that group of 75% of the 1997/98 result.

¹ Fowler, S.M., Lampkin, N.H., and P Midmore. (2000) *Organic Farm Incomes in England and Wales 1995/96 – 1997/98*. Welsh Institute of Rural Studies, Aberystwyth. Report for MAFF contract ref. OF0190
URL www.organic.aber.ac.uk/library/Organic_Farm_Incomes.pdf.

The group of LFA farms, consisting of four cattle and sheep and one mixed farm, achieved an average NFI of £72/ha in 1998/99.

1. Introduction

This report presents results from research work carried out for the Ministry of Agriculture, Fisheries and Food (MAFF) on the financial performance of organic farms over the years 1997/98 and 1998/99.

The aim of the research reported here was to assess the financial performance of organic farms, differentiated by farm type, in order to:

- inform MAFF policy-making with respect to organic farming, arable and livestock commodity support programmes and agri-environmental policy, and
- provide a basis for assessments by farmers, advisers and other interested parties of the farm-level implications of conversion to and continued organic farming.

The specific contract objectives included the collation of financial data collected under three different MAFF-funded research projects. These projects covered: organic dairy (IGER, Trawsgoed with the Institute of Rural Studies (IRS)), hill livestock (ADAS, Redesdale) and arable (ADAS Terrington) farms. Additionally, IRS collected financial data on 21 organic farms of types selected to complement the farms above (lowland cattle and sheep, mixed, and horticultural holdings) (see Table 1).

This report represents a continuation of a research project carried out for MAFF (project OF0125, covering 1995/96 to 1997/98) with the same aims, but which also provided matched conventional farm incomes results alongside organic farm results.²

² Fowler, S.M., Lampkin, N.H., and P Midmore. (2000) *Organic Farm Incomes in England and Wales 1995/96 – 1997/98*. Welsh Institute of Rural Studies, Aberystwyth. Report for MAFF contract ref. OF0190
URL www.organic.aber.ac.uk/library/Organic_Farm_Incomes.pdf.

2. Methods

Organic farm data sources and collection methods

This report presents results from organic farm businesses in England and Wales with account years ending between July and the following April; all (except four) falling between December to April. In these cases artificial year-ends were used to avoid year-ends occurring during the growing season.

Four different MAFF-funded projects contributed data to this report (see Table 1):

1. Organic Hill Livestock Production (ADAS Redesdale)

This project aims to evaluate the effects of converting to and continued management of a hill/upland livestock system to organic farming. To help interpret the physical and financial performance of the organic unit at Redesdale, a network of linked farms was established to support the main research project. There has been a difficulty in maintaining a consistent sample of farms in this project, and in 1998/99, only farm income data for five linked farms were supplied by ADAS to IRS. All were costed using the ADAS Business Recording Service. Gross margin costings only were supplied for a further three farms, and for the three systems being operated by ADAS at Redesdale.

2. Organic Arable Farming (ADAS Terrington)

A similar network of linked farms was associated with this project, which aimed to evaluate the effects of converting and the continued organic management of specialist arable farms. Whole farm income data from five linked predominantly cropping farms were provided by ADAS to IRS for this study. Of these, one farm has been categorised with the mixed farms in this report. One of these farms has not been included in the whole farm results due to the small proportion of land area in conversion and in organic production.

3. Organic Milk Production (IGER, IRS, ADAS)

A MAFF funded project to study the conversion of Ty Gwyn dairy unit to organic milk production also used the linked farms approach. Six of these farms, now in full organic production, were used to provide data for the report (see Table 1). The data were collected by IRS using the Integrated Accounts System (IAS) used by Farm Business Survey Centres. Only gross margin data from the Ty Gwyn farm, now split into two herds, are included.

The Ty Gwyn study is now in the third phase of work, and data for converting dairy farms are being collected, but the group consists of less than five farms, therefore data are not presented in this report.

4. Economics of organic farming (IRS)

Data on 21 additional commercial organic farms in England and Wales were collected under this project to complement the farm types under consideration in the above studies. The main types selected were mixed, cropping, horticulture and lowland cattle and sheep. Data were collected from farms which had been recruited for the previous project (OF0125) that were willing to provide their information for a further year. For the previous project, farms were randomly selected within robust farm type categories from 1996 UK Register of Organic Food Standards (UKROFS) registered holdings with identifiable holding numbers over 8 European Size Units (ESU) (for definition, see Appendix 2). Of about 800 UKROFS registered holdings at the beginning of 1996, 640 had identifiable numbers of which only 445 were usable, primarily due to significant numbers of

duplicates. Of the 445 usable numbers, 147 were for holdings of less than 8 ESU, leaving a group of 298 from which farms could be selected. Farms with less than 50% of land with organic status were excluded.

The data were collected by IRS using the Aberystwyth Farm Business Survey (FBS) IAS (See Table 1). Horticultural data were collected by HDRA on sub-contract from IRS, also using the IAS approach.

The Welsh Institute of Rural Studies (IRS) at the University of Wales, Aberystwyth was responsible for collating the data from the different sources.

Table 1 Distribution of organic farms by type and source of data, 1998/99

<i>Data source</i>	<i>ADAS Redesdale Hill livestock</i>	<i>ADAS Terrington Arable</i>	<i>IRS</i>		<i>HDRA</i>	<i>Total</i>
<i>Farm Type</i>			<i>Dairy</i>	<i>Other</i>	<i>Horti- culture</i>	
Cereals & general cropping		3+ 2 GM		2		5+ 2 GM
Horticulture					5	5
Pigs and poultry						0
Dairy			6	2		8
Cattle and sheep						
LFA	4 + 3 GM					4 + 3 GM
Lowland				9		9
Mixed	1*	1		3		5*
Other						0
Total	5* +3 GM	4 + 2 GM	6	16	5	36 + 5 GM

GM – Gross margin data only

*One farm that classified as a mixed farm in 1997/98 and 1998/99 has been included in tables for hill livestock as well as the mixed category, to bring both groups to the required minimum of five farms.

Samples

The data were gathered using a variety of methods, depending on the source as described above (see Table 1), but processed according to standardised Farm Business Survey guidelines set down by the Ministry of Agriculture, Fisheries & Food, Economics (Farm Business) Division (Farm Business Survey, February 1996). In some cases only gross margin information for specific enterprises were provided. Where farms dropped out of the survey in 1998/99 and new farms were included, to provide tables of whole farm data from identical samples, two sets of 1998/99 data are presented with the new farm figures excluded from the set presented with the 1997/98 data. In this report farms are largely presented in the categories into which they fall using their 1998/99 data for classification; in previous reports (see reference on page 1) farms were kept in the category into which they fell in the first year of the study in order to provide continuous samples.

Farm classification

The study farms were classified by constituent EC type (1985 EC Typology described in Commission Decision 85/377/EEC as amended with minor modifications, MAFF 1998)³. They are presented in groups by Robust type according to the UK farm classification system (revised 1994, MAFF, 1997)⁴. (See Appendix 2, page 61 for more information.) The use of constituent EC types relies on the use of standard gross margins (SGMs) from which European Size Units (ESUs) are derived (which in turn allow classification into EC types); this typology system was originally devised for conventional agricultural systems and therefore not entirely appropriate for these organic farms (see Appendix 2). Classification of farms by size and type is inevitably a broad-brush exercise, but where sample sizes are small and farming systems diverse, some form of categorisation is essential to elucidate trends and patterns.

Robust types 1 (Cereals) and 2 (General Cropping), are merged to present enough farms in each sample to maintain confidentiality.

One of the hill farms studied in the ADAS Redesdale study was classified as a mixed farm in 1998/99 but its extensive nature makes it similar to other LFA cattle and sheep holdings. Including it with other LFA cattle and sheep farms makes a group of five thus allowing presentation of the data from this group.

One of the farms presented in the cropping group was classified as a mixed farm in 1997/98 and as a cropping farm in 1998/99, but it is presented with the cropping sample to give an identical sample of five farms. For further information on the samples, see sections on each farm type.

Continuous samples

Due to the constraints of confidentiality guaranteed to farmers participating in these surveys, no data are presented for groups of less than five farms. At the time of recruiting for the previous contract (in 1996), there were too few organic farms in particular categories from which to sample (i.e. farm types 'pigs and poultry' and 'other'), and it was difficult recruiting sufficient participants for other types (particularly horticultural holdings). One farm in the horticulture category did not continue in the study for 1998/99 and a replacement farm was recruited, allowing only four holdings in an identical continuous sample, which is therefore not presented, although an indication of changes in incomes, input and output measures is given. A similar situation arises in the LFA cattle and sheep category, where the sample presented is of five farms in 1998/99, but an identical sample for the two years of only four farms was possible, which is therefore not presented, although some observations of trends are given.

³ Farm Incomes in the United Kingdom 1996/97 (1998) MAFF, London: TSO.

⁴ Farm Incomes in the United Kingdom 1995/96 (1997) MAFF, Norwich: HMSO.

3. Presentation of results

Whole farm data

Results for each type of organic farm have been averaged. Where new farms are included in the 1998/99 sample, and an identical sample contains at least five farms, an identical sample of 1997/98 and 1998/99 farms is also presented.

Table 2 gives an overview of the performance of organic farms in 1998/99 in £ per effective hectare of Utilisable Agricultural Area (UAA). Within sections on each farm type, tables show breakdowns of average outputs, inputs and incomes for whole farms and in £/ha; for dairy, mixed, and lowland cattle and sheep farms, tables are given for identical samples for two years. Figure 3 shows summary results for the six farm types by farm and ha, output columns are adjusted to exclude BLSA and input columns do not include farmer and spouse labour, so that the income columns represents NFI excluding BLSA. Figures within chapters showing categories of outputs and inputs *include* BLSA and farmer and spouse labour.

Throughout the text, the terms *input* and *output* are used to define financial values rather than physical quantities (for further definitions of terms please see Appendix 3, page 62).

Within Appendix 1, Tables A1 to A6 give details of outputs, inputs, incomes, some performance measures, and asset and liability information for six farm types. Where physical information was available in addition to the financial data collected, figures for livestock units per forage hectare, and labour units per farm, are presented. Where direct data were not available, labour units have been derived from wages paid using standard agricultural wages (based on Agricultural Wages Board). All labour-use figures presented are, however, very approximate.

Tables provide whole farm totals averaged for each farm type, and weighted averages per hectare of UAA over the farms or holdings. Values per hectare of total UAA are used (rather than measures per hectare in specific enterprises) because presenting the whole farm situation reflects the interdependence of enterprises. The fact that, for instance, organic horticultural holdings cannot crop their entire land in one year has a considerable influence on the overall farm profitability.

Adjustments to valuations of breeding livestock, reflecting widespread national reductions, were made during the 1998/99 year. The effect of these revaluations is reflected in the difference shown in full tables in the Appendices as the difference between NFI including and excluding Breeding Livestock Appreciation (BLSA). References in the text to NFI, ONI and Cash Income are excluding BLSA; MII includes BLSA.

Income measures

In the presentation of the Management and Investment Income (MII) and Net Farm Income (NFI) results, all farms are effectively treated as tenanted, and a rental value is imputed as an expense for owner-occupied land. The cost of permanent improvements to farms, together with any capital grants relating to such work, are excluded from these income calculations, although such landlord-type improvements will be reflected in higher rent or rental value charges. Debt servicing charges incurred by farmers on farm borrowing or the leasing of equipment are ignored for the purposes of calculating NFI and MII, but such charges are taken into account in calculating Occupier's Net Income (ONI) and cash income.

MII represents a return to management, whether paid or not, and tenant-type capital invested in the farm, whether borrowed or not. Thus, as well as the usual variable and fixed costs, it includes a nominal charge for farmer and spouse physical labour, but not management time, and a charge for depreciation of machinery (but not the actual costs of machinery purchased in that period). Interest payments are not included.

NFI represents the return to farmer and spouse for their manual and managerial labour and on the tenant-type capital invested in the farm. NFI can be derived from MII by deducting the cost of paid management, and adding back the notional charge for farmer and spouse labour.

In the presentation of the MII and NFI results, a number of adjustments are made to make farms comparable with each other as far as resource endowment is concerned:

- Land and property: all farms are treated as tenanted – a rental value is imputed as an expense for owner-occupied land. The costs of permanent improvements to farms, together with any capital grants relating to such work, are therefore excluded from these income calculations, although such landlord-type improvements are reflected in higher rent or rental value charges.
- Capital: all farms are treated as if they have no borrowings – debt service charges incurred by farmers on farm borrowing or the leasing of equipment were ignored for the purposes of calculating NFI and MII.
- Labour: all farms are treated as if all labour is paid – including other unpaid labour and, for MII, notional values for farmer and spouse manual labour are included.

ONI and Cash Income definitions exclude these notional charges and reflect actual land, property and capital costs. The measure closest to the normal definition of profit is that of ONI, as it excludes nominal charges for unpaid labour of farmer and spouse as well as any nominal rents charged, but includes interest charges and depreciation of buildings and works. ONI and Cash Income more closely represent the actual situations on farms, but comparisons with other farms are less reliable because of differences in land tenure, reliance on unpaid labour, and owner equity.

For further definitions of terms see Appendix 3.

4. Results highlights

The results presented cover two years during which the effect of the BSE crisis, which began in March 1996, was still being felt, and there was downward pressure on conventional farm-gate prices and support payments due to the increased value of the pound; however, there were significant improvements in the marketing conditions for organic products in 1997/98 and these were maintained in 1998/99.

The organic farms studied include a range from recently converted farms and farms with established organic areas but also with conventional land, to long-established entirely organic farms. The farms in the ADAS Terrington trial were the organic farms with the highest proportion of land not in conversion; in 1997/98 the cropping farms presented in Section 5 ranged from 59% of land to 100% of land under organic management, averaging at 84%.

Table 2 gives a summary breakdown of outputs and inputs as calculated for MII, and three other income measures (NFI, ONI and Cash Income) for 1998/99. Figures 1 and 2 show the outputs and inputs as proportions of totals (inputs as calculated for MII).

Table 2 Organic farms data summary (£/ha), full samples, 1998/99

	<i>Cropping</i>	<i>Horti- culture</i>	<i>Dairy Dairy</i>	<i>Cattle & Sheep Lowland LFA</i>	<i>Mixed</i>	
	<i>n=5</i>	<i>n=5</i>	<i>n=8</i>	<i>n=9</i>	<i>n=5</i>	
Livestock outputs	216	52	1,159	623	256	325
Livestock subsidies	65	10	4	93	193	81
Cropping and by-products	852	6,715	330	137	119	254
Crop subsidies	152	0	66	52	12	78
Other outputs	52	148	20	54	24	27
Agri-environment payments	26	19	24	40	31	13
TOTAL OUTPUTS	1,363	6,945	1,603	999	634	777
Livestock	68	101	418	269	119	110
Crop	120	1,909	134	36	67	70
Labour	398	3,514	376	372	100	214
Machinery	276	734	285	215	206	220
General	95	454	125	119	63	68
Land costs	189	308	174	204	77	134
TOTAL INPUTS	1,147	7,020	1,512	1,216	632	816
Add paid management input	26	0	0	35	0	19
Management & Investment Income	243	-75	91	-182	2	-20
Net Farm Income (ex.BLSA)	281	1,836	200	-81	72	15
Occupier's Net Income	295	1,455	-8	-40	96	34
Cash Income	444	2,323	245	222	156	110

Table 2 and Figure 1 illustrate the high dependence on subsidies of LFA cattle and sheep farms; in 1998/99, 31% of their output was derived from livestock subsidies. The organic dairy farms and horticultural holdings had the lowest direct subsidies, making up less than 1% of their outputs.

Cropping output made up 63% of total output of organic cropping farms, and 97% of the horticultural holdings; on the mixed farms, cropping and arable area payments made up 43% of outputs compared with livestock and livestock subsidies that comprised 52% of outputs.

Figure 1 Proportions of total output from different categories by farm type, full samples, 1998/99

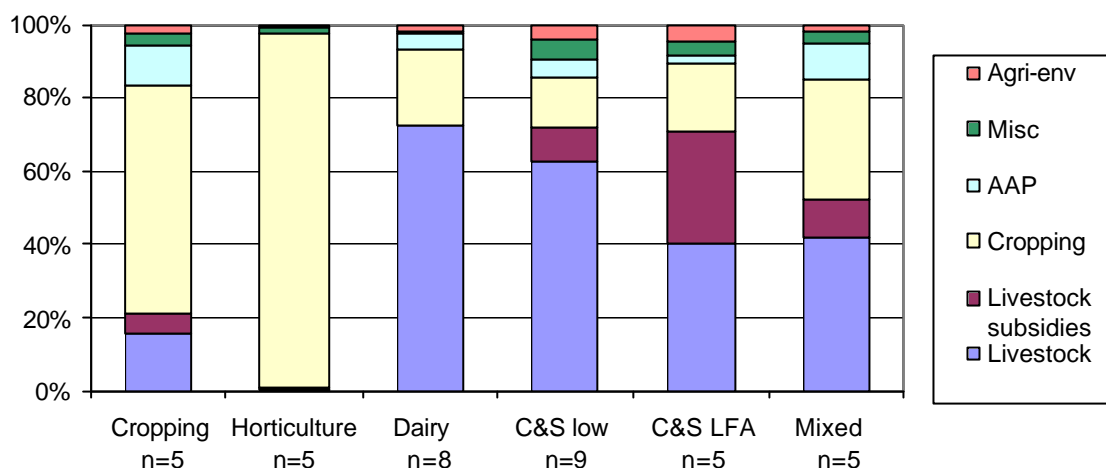
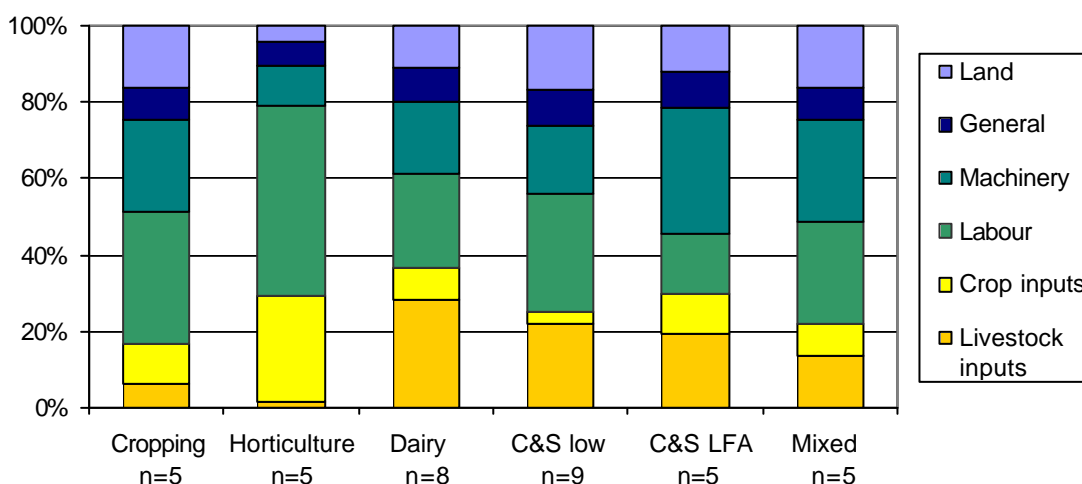


Table 2 and Figure 2 indicate the dominance of labour inputs on the organic farms, the proportion of total inputs ranging from 16% to 50% of costs for LFA cattle and sheep farms and horticultural holdings, respectively. Surprisingly, machinery costs make up 33% of inputs on LFA cattle and sheep farms, compared with only 10% on horticultural holdings, but in terms of actual inputs per hectare, the LFA cattle and sheep farms spent less than 30% as much per hectare on machinery as did the horticultural holdings. Only lowland beef and sheep farms had lower machinery costs per hectare, of £215/ha, in line with the reduced proportion of land in cereals and cash crops (<1% compared with 11% of UAA on the LFA farms used for cereals and cash cropping).

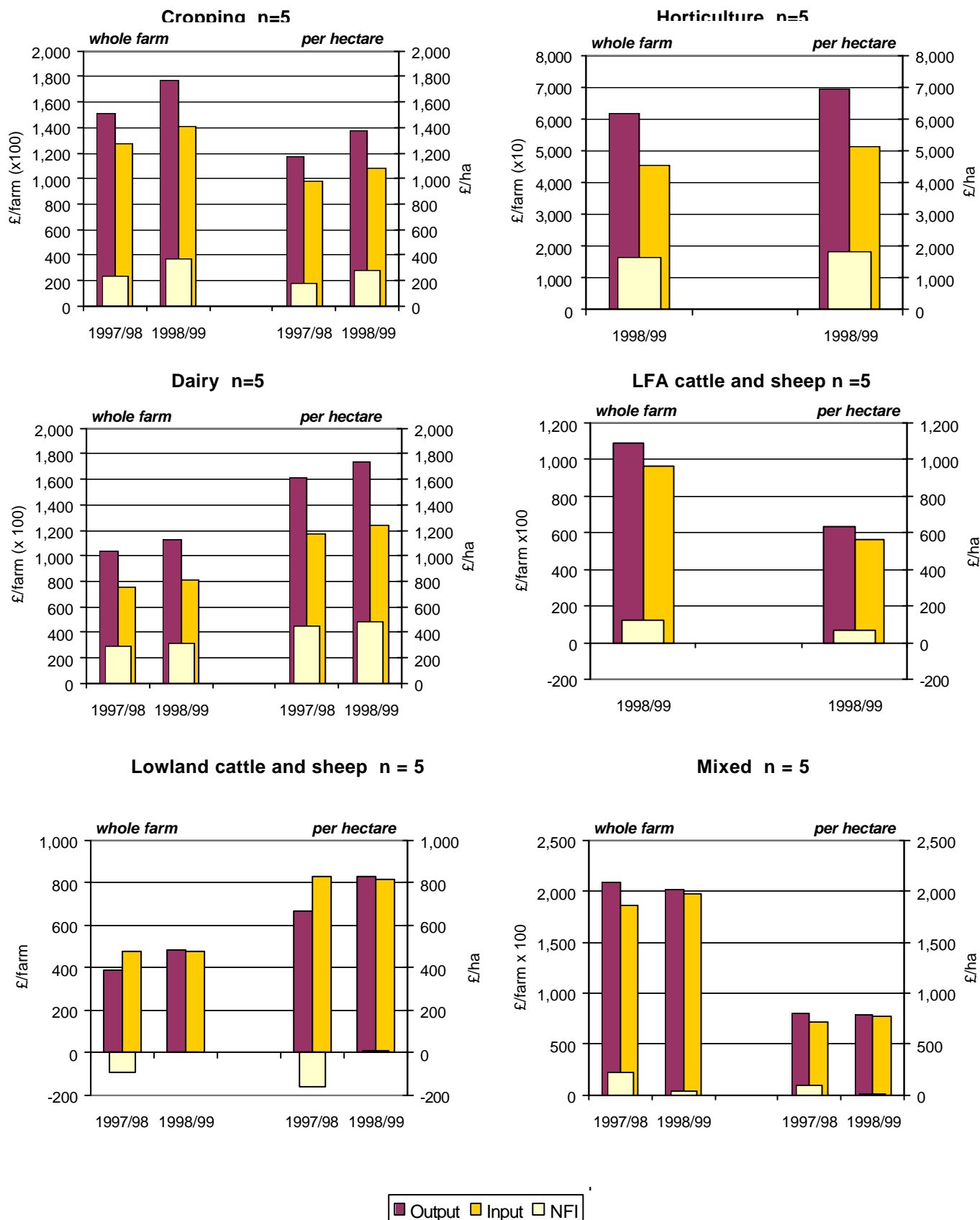
Figure 2 Proportions of total inputs from different categories by farm type, full samples, 1998/99



Interpretation of results

The organic farm sample is so small that outliers (especially larger farms) will have an undue influence on the average. If the sample were larger, general trends would be more apparent and less influenced by individual farms. Despite this influence of individual organic farms on the average, some explanation is attempted of trends and changes in inputs, outputs and incomes, however, great care must be taken in extrapolating results.

Figure 3 Average outputs, inputs and NFI (£/farm and £/ha) of organic farms of four types, 1997/98 and 1998/99, identical samples, and of two types, 1998/99 only



5. Cropping farms

For detailed results see Appendix 1, Table A1, page 40.

Sample

Four of this group of five farms were classified as general cropping farms, the fifth was classified as a cereals farm. Four of them managed all of their land to organic standards in 1998/99. They ranged in size from 75 to 250 ha, averaging at 130 ha UAA. Four of the farms had suckler cow enterprises, and the fifth a store cattle enterprise; one farm had store lambs and two had breeding sheep. Two of the farms also had poultry enterprises. Stocking rates for the livestock on these farms ranged from 1.1 to 2 GLU per forage hectare. All the farms were in England.

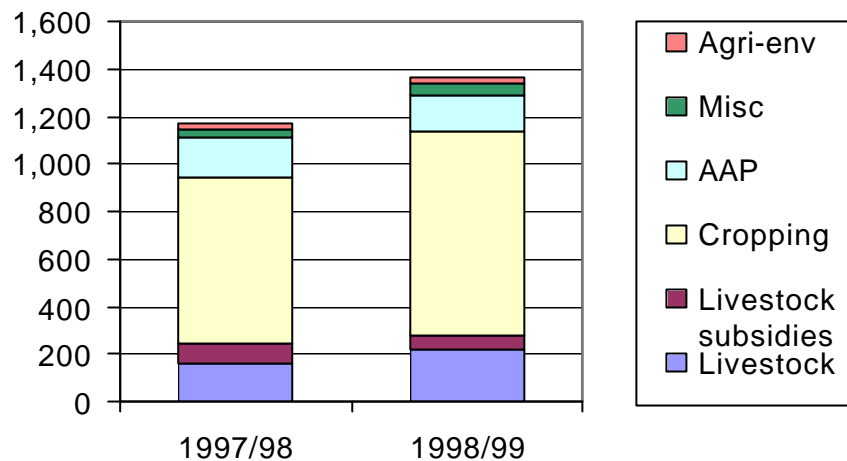
Four of the farms were owner occupied, and two of these rented extra land.

Table 3 Summary data for five organic general cropping farms, (£/farm and £/ha), identical sample, 1997/98 – 1998/99

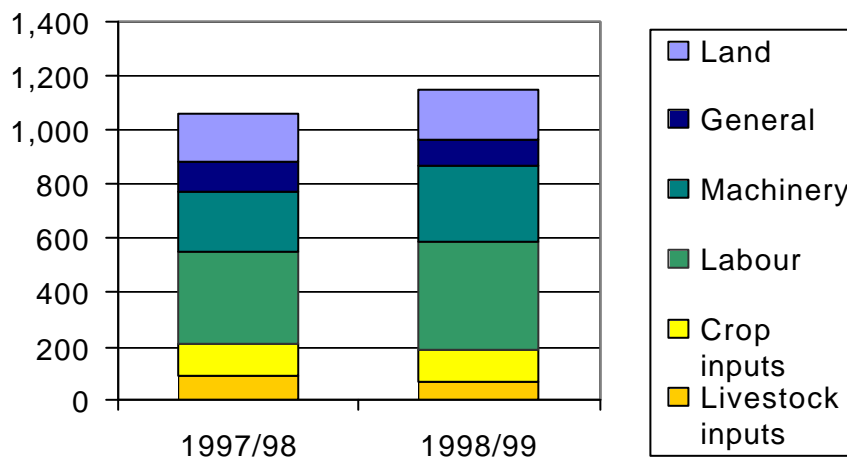
	1997/98		1998/99	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	20,878	162	27,990	216
Livestock subsidies	10,656	83	8,384	65
Cropping outputs	90,143	698	110,464	852
Arable area payments	21,795	169	19,753	152
Miscellaneous	4,713	37	6,695	52
Agri-env. payments	2,388	19	3,416	26
TOTAL OUTPUTS	150,572	1,167	176,702	1,363
Livestock inputs	11,359	88	8,854	68
Crop inputs	16,079	125	15,614	120
Labour	43,654	338	51,583	398
Machinery	28,110	218	35,782	276
General	14,270	111	12,294	95
Land	22,630	175	24,461	189
TOTAL INPUTS	136,102	1,054	148,589	1,147
Add paid management	3,240	25	3,400	26
MII	17,711	137	31,513	243
NFI	23,401	181	36,374	281
ONI	26,253	203	38,281	295
Cash Income	44,191	342	57,510	444

Outputs

Despite the presence of livestock enterprises on all of these farms, cropping and arable area outputs generated 74% of outputs in 1998/99. Between 1997/98 and 1998/99 outputs from livestock and cropping enterprises increased (by 34% and 22% respectively) but subsidies for both categories decreased. The total outputs increased by 17% from £1,167/ha to £1,363/ha.

Figure 4 Outputs, in categories, of five organic cropping farms (£/ha), 1997/98–1998/99*Inputs*

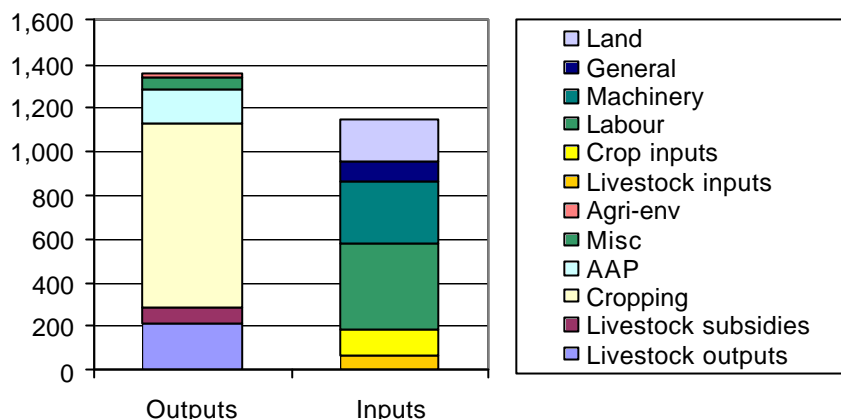
Overall inputs, including allowances for unpaid labour and rental value, did not change much between years, increasing by 9% from £1,054/ha to £1,147/ha. Machinery costs increased by 27%, largely due to large depreciation increases on two of the farms. Labour costs increased on four of the five farms so that the average rose by 18%. Largely due to considerably lower expenditure on purchased fodder by two farms in 1998/99, average livestock inputs fell by over 20% and general costs and crop inputs fell slightly.

Figure 5 Inputs, in categories, of five organic cropping farms (£/ha), 1997/98–1998/99*Incomes*

The slight adjustments in outputs and inputs resulted in a 77% increase in MII to £243 per hectare (see Table 3 and Figure 6). Other income measures increased to a lesser extent, with Cash Income rising from £342 to £444/ha, an increase of 30%.

Figure 6 Outputs and inputs, in categories, of five organic cropping farms (£/ha), 1998/99

Difference between columns represents MII.



Discussion

There is no consistent pattern from this varied group of organic cropping farms to account for the average improvement of incomes. The general price rises for organic cereals between 1997/98 and 1998/99 will have contributed to the average increase in cropping revenues, although average yields appeared lower in 1998/99 than the previous year. Many of the cereals gained an extra £10/t in 1998/99 (the average winter wheat price increased from £180 to £195/t in 1998/99, Table 15), and the price achieved for potatoes increased by £80/tonne to an average of £330/tonne (Table 20 see page 39).

Two of the farms studied increased the land area under organic management in 1998/99. On one farm there was a 34% increase in machinery costs, largely through a trebling of contractor costs. The same farm achieved substantial increases in both livestock and cropping outputs in the 1998/99. A second farm with some land managed conventionally in both years, reduced both outputs and inputs in 1998/99, and achieved very similar income figures in both years. An entirely organic farm maintained outputs in 1998/99, but had large increases in labour and machinery costs (repairs and depreciation), resulting in sharply reduced income.

6. Horticultural holdings

For detailed results see Appendix 1, Table A2, page 43.

Sample

Only one of the organic horticultural units was situated on ideal vegetable growing land. Out of the organic holdings classified by MAFF as Robust Type 3 (Horticulture) in 1996, only one third were in the eastern counties of England, where the majority of conventional horticultural units were located. Within the sample for this study, the majority of organic holdings were in the south-west and west of England and in Wales, and one was in a Less Favoured Area.

A new farm was recruited in 1998/99 to replace the one farm that dropped out of the survey, and therefore an identical sample of five holdings is not available. The additional holding in the 1998/99 survey had three times the average cropping area of the average of the other four holdings, and belonged to ESU size group 6 (60–99.9 ESUs) contrasting with the other holdings in size groups 2 and 3 (between 8 and 27.9 ESUs).

Table 4 Summary data for five organic horticultural holdings (£/holding and £/ha), 1998/99

	1998/99	
	£/holding	£/ha
Livestock outputs	462	52
Livestock subsidies	90	10
Cropping outputs	59,506	6,715
Arable area payments	0	0
Miscellaneous	1,316	148
Agri-env. payments	171	19
TOTAL OUTPUTS	61,545	6,945
Livestock inputs	892	101
Crop inputs	16,920	1,909
Labour	31,140	3,514
Machinery	6,502	734
General	4,024	454
Land	2,730	308
TOTAL INPUTS	62,209	7,020
Add paid management	0	0
MII	-664	-75
NFI	16,268	1,836
ONI	12,894	1,455
Cash Income	20,583	2,323

All the organic holdings in the survey grew predominantly outdoor field vegetables. A wide range of vegetables was grown, commonly 20-30 different types. The area of protected cropping was small.

Their method of marketing was mixed; the survey contains 60% of organic holdings selling through their own direct marketing scheme (box scheme), 30% wholesale and 10% to a packer. Most of those with box schemes bought in vegetables to enable them to continue the box scheme through the year.

Outputs

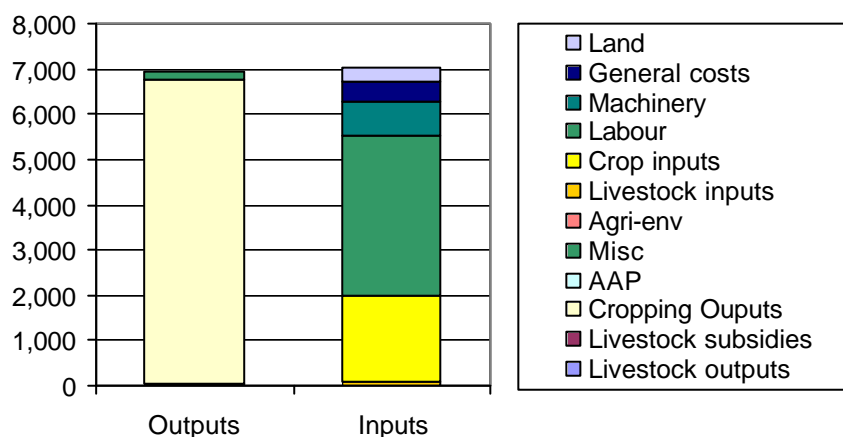
The five holdings achieved an average output of nearly £7,000/ha, ranging from £3,000 to over £10,500/ha in 1998/99; cropping outputs accounted for 97% of outputs. The four holdings studied for both years achieved very consistent cropping and total outputs in both years.

Inputs

Labour costs (including farmer and spouse labour) accounted for 50% of total inputs; cropping inputs accounting for a further 27%, with machinery costs accounting for only 10% of inputs. Within the identical sample of four holdings, there was an overall increase in outputs of 6%, largely relating to a 22% increase in cropping inputs.

Figure 7 Outputs and inputs, in categories, of five horticultural holdings (£/ha), 1998/99

Difference between columns represents MII.



Incomes

Because of the increase in costs the average incomes on the identical sample decreased in 1998/99. Of the five holdings studied in 1998/99, whole-farm MII was -£664 (-£75/ha), ONI was £12,894 and cash income £20,583.

Discussion

On average, the holdings used 1.9 labour units of family labour per holding. Of all six farm types, horticultural holdings had the highest average tenant's capital at £2,130/ha, and the average return on this was negative, although the two larger holdings achieved positive returns on tenant's and all capital.

It should be noted that the organic holdings presented in this sample are not representative of larger, field scale, vegetable operations entering conversion in the late 1990s and their performance does not reflect the potential of larger operations. The complexity of cropping on these holdings, and the lack

of detailed crop information, especially of yield and price data limits the interpretation of increases in outputs. Output changes may relate to changes in marketing, prices, yields, and/or crops grown.

Increases in both outputs and inputs are related to intensification of production on a number of the sample farms (e.g. one farmer has gone out of livestock and into intensive vegetable production and another farmer has reduced vegetable production and expanded into organic transplant production). The small-scale horticultural units use considerable amounts of labour for crop production and marketing; marketing time should not be included as 'labour' but in practice it is difficult to differentiate on small units such as these.

7. Dairy farms

For detailed results see Appendix 1, Table A3, page 46.

Sample

Two groups of data are presented here. The identical sample for two years of five farms consists of three long-established organic dairy farms and two farms that started selling organic milk in 1998; two of the five farms were in less-favoured areas. The full sample of eight farms, for which data are presented for 1998/99 only, includes three other dairy farms each of which has individual characteristics that made them less representative of the performance of organic dairy farms in the late 1990s.

Table 5 Summary data for organic dairy farms (£/farm and £/ha), 1997/98–1998/99

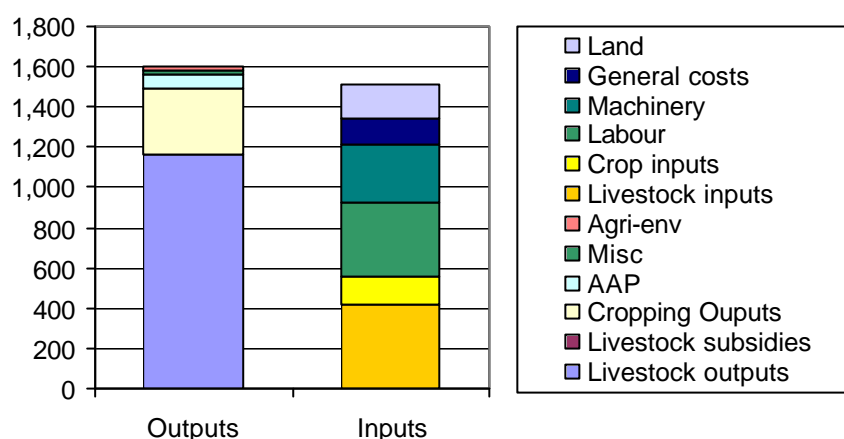
	1997/98		1998/99		1998/99	
	<i>identical sample (n=5)</i>				<i>full sample (n=8)</i>	
	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
Livestock outputs	89,582	1,385	95,615	1,477	153,811	1,159
Livestock subsidies	198	3	202	3	531	4
Cropping outputs	8,917	138	7,741	120	43,859	330
Arable area payments	1,792	28	1,069	17	8,777	66
Miscellaneous	2,647	41	1,297	20	2,653	20
Agri-env. payments	1,556	24	2,318	36	3,137	24
TOTAL OUTPUTS	104,693	1,619	108,240	1,672	212,768	1,603
Livestock inputs	22,394	346	31,377	485	55,505	418
Crop inputs	4,278	66	3,752	58	17,778	134
Labour	21,111	326	21,555	333	49,930	376
Machinery	19,321	299	16,222	251	37,821	285
General	9,215	143	7,599	117	16,534	125
Land	10,909	169	10,615	164	23,085	174
TOTAL INPUTS	87,228	1,349	91,119	1,408	200,652	1,512
Add paid management	0	0	0	0	0	0
MII	17,481	270	17,121	265	12,116	91
NFI	28,732	444	31,517	487	26,566	200
ONI	24,380	377	28,095	434	-1,115	-8
Cash Income	34,226	529	40,803	630	32,572	245

Outputs

On average, livestock outputs accounted for 88% of outputs of the identical sample of five farms in 1998/99, and 72% of the outputs of the full sample that included larger farms with cropping land (see Figure 8). Two of the farms only started selling organic milk during the 1997/98 year; the established organic farms averaged 27 pence per litre (ppl) in 1997/98, the newly converted farms averaged 21

ppl in that year. In 1998/99 the average price for milk for the five farms in the identical sample was 29 ppl; the average price was 27 ppl for the eight farms, largely due to a very low price achieved on one farm. Whole farm livestock outputs on the identical sample farms increased by 7% in 1998/99 compared with the previous year; but an average fall in cropping output restricted the increase in total output to 3%.

Figure 8 Outputs and inputs, in categories, of eight organic dairy farms (£/ha), full sample, 1998/99



Difference between columns represents MII.

Figure 9 Outputs, in categories, of five organic dairy farms (£/ha), identical sample, 1997/98–1998/99

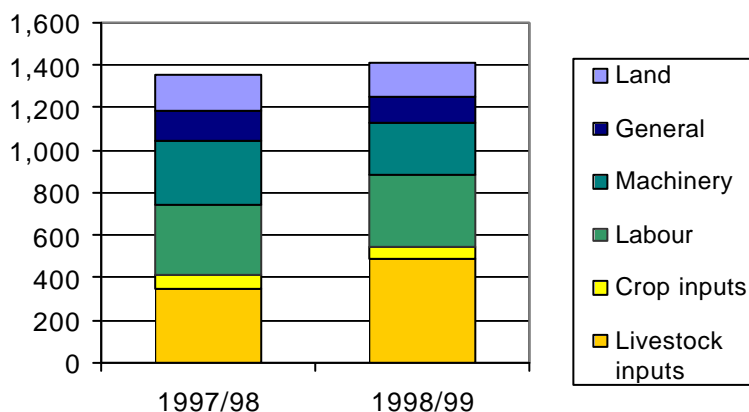
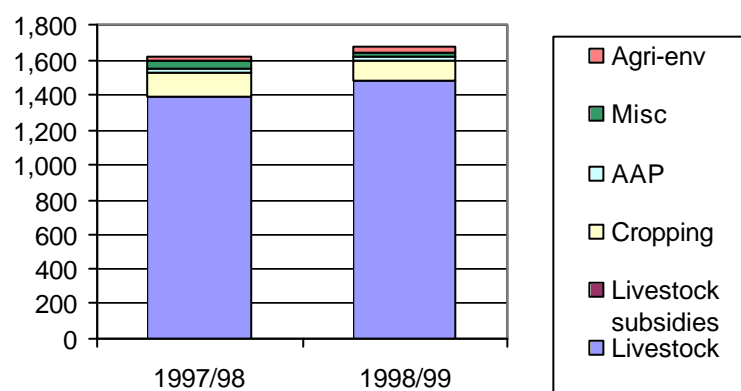


Figure 10 Inputs, in categories, of five organic dairy farms (£/ha), identical sample, 1997/98–1998/99

Inputs

The increase of livestock variable costs between years (see Figure 10) is partly related to the change to organic concentrates on the two farms gaining full organic status in 1998, but a greater effect is caused by the increase in other livestock costs on each of the farms in the identical sample, the increase in costs ranged from 45% to 146%. Despite this increase, variable costs on the identical sample farms in 1998/99 accounted for 32% of total inputs, and labour and machinery charges were 20% and 16% of total inputs, respectively. The 40% increase in livestock inputs between the years was ameliorated somewhat by reductions in costs for other categories save labour, which increased by 2%, resulting in an overall increase in inputs of 6%.

Income

Table 5 shows that the full sample of eight farms achieved an average MII of £91/ha, NFI of £200/ha and Cash Income of £245/ha. The contrast with negative ONI (-£8/ha) results from the inclusion of buildings and works depreciation in this figure; one farm had extremely high values, resulting in the negative result for the group average.

Income changes on the group of five farms (see Table 5) between the years resulted from the greater increase in inputs than outputs, so that the whole-farm MII was 2% lower in 1998/99; adjustments for BLSA that are included in the calculation of MII, and the lower figure for farmer and spouse labour in the second year resulted in an improvement in average NFI (excluding BLSA), ONI and Cash Income for the five farms in 1998/99.

Discussion

In 1998/99 the average UAA on the five farms decreased slightly, and the number of dairy cows and livestock carried increased, resulting in a slight increase in stocking rate to 1.5 grazing LU per forage hectare; milk yields per cow ranged from 4,900 l to 5,900 l, averaging at 5,400 l. Milk yields per cow combined with stocking rate, gives a better indication of productivity - litres per hectare, which ranged from 6,250 l/ha to 11,500 l/ha, with an average of 8,500 l/ha for the eight farms in 1998/99. The average milk yield per hectare on the identical group of five farms in 1998/99 was 99% of that of the previous year, so the improvement in livestock outputs related to the price received for the milk (in the second year all five farms received the organic price for the whole year), outputs per cow from cull and calf sales and valuation changes declined by 25% in 1998/99 for this group. The dairy gross margins shown (Table 9) reflect these changes; on nine dairy enterprises average milk outputs per cow were very similar over two years, but other dairy outputs dropped by 20% in 1998/99 compared with 1997/98.

Figure 8 indicates outputs and inputs as used for calculating average MII for the full sample (£91/ha, see Table 5); excluding one farm that was severely affected by very high quota leasing costs, the NFI per ha on the other farms in 1998/99 ranged from £250 to £720.

8. Lowland cattle and sheep farms

For detailed results see Appendix 1, Table A4, page 49.

Sample

Two groups of farms are presented; an identical sample of five specialist cattle and sheep farms for 1997/98 and 1998/99, and a larger sample of nine farms for 1998/99 only, which includes a farm with a dairy enterprise and a farm with other livestock enterprises, but all falling within the lowland cattle and sheep farm category. The identical group ranged in size from 27 to 115 ha; three of the farms were smaller than 50 ha, with an average of 58.5 ha located in central and southwest England. Two of the farms grow some concentrates for stock feed. The geographic spread of the larger sample was wider, but there were no farms from the north of England.

Table 6 Summary data for lowland organic cattle and sheep farms (£/farm and £/ha), 1997/98 – 1998/99

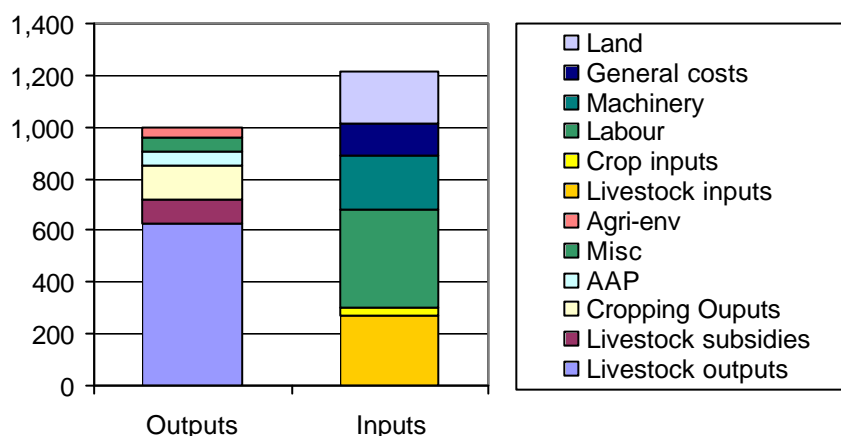
	1997/98		1998/99		1998/99	
	<i>identical sample (n=5)</i>				<i>full sample (n=9)</i>	
	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
Livestock outputs	21,049	362	23,939	409	62,049	623
Livestock subsidies	8,898	153	10,256	175	9,271	93
Cropping outputs	1,772	31	1,115	19	13,672	137
Arable area payments	980	17	570	10	5,192	52
Miscellaneous	2,354	41	4,533	77	5,331	54
Agri-env. payments	3,502	60	4,308	74	3,957	40
TOTAL OUTPUTS	38,556	664	44,720	764	99,471	999
Livestock inputs	8,935	154	10,674	182	26,788	269
Crop inputs	1,294	22	1,020	17	3,598	36
Labour	17,279	297	16,293	278	37,070	372
Machinery	8,922	154	9,492	162	21,404	215
General	6,200	107	5,370	92	11,880	119
Land	13,275	228	13,286	227	20,286	204
TOTAL INPUTS	55,906	962	56,135	960	121,026	1,216
Add paid management	0	0	0	0	3,443	35
MII	-17,350	-299	-11,415	-195	-18,112	-182
NFI	-9,370	-161	412	7	-8,077	-81
ONI	-6,690	-115	2,417	41	-3,969	-40
Cash Income	-6,766	-116	15,898	272	22,140	222

Outputs

Figure 12 shows that the identical sample of farms increased their livestock outputs and livestock subsidies by 13% and 14% respectively between 1997/98 and 1998/99; cropping outputs decreased, but were compensated by increases in miscellaneous and agri-environmental outputs, resulting in an overall improvement in total output of 15%.

In 1997/98, livestock outputs made up 76% of total outputs on the group of five farms, and 72% on the larger group (see Figure 11), because of higher cropping outputs in the larger group.

Figure 11 Outputs and inputs, in categories, of nine organic lowland cattle and sheep farms (£/ha), full sample, 1998/99



Difference between columns represents MII.

Figure 12 Outputs, in categories, of five organic lowland cattle and sheep farms (£/ha), identical sample, 1997/98–1998/99

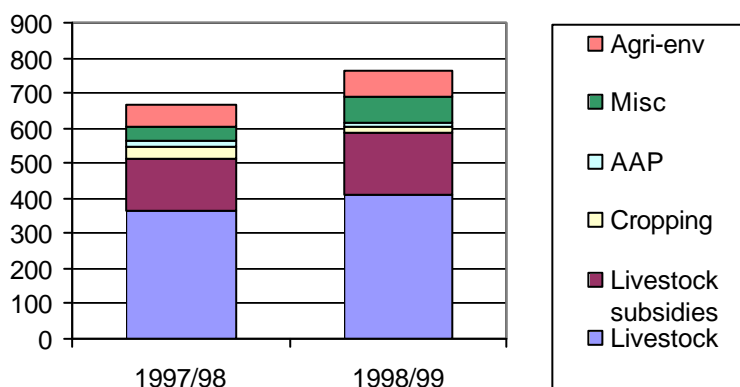
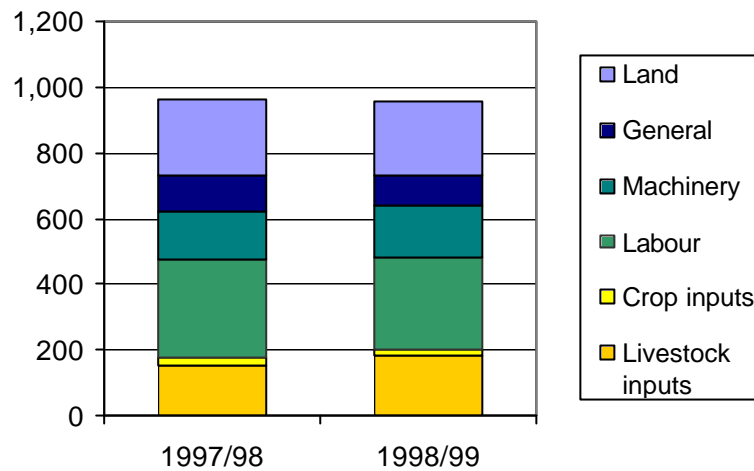


Figure 13 Inputs, in categories, of five organic lowland cattle and sheep farms (£/ha), identical sample, 1997/98 - 1998/99



Inputs

Figure 2 indicates that only 25% of inputs on the nine farms were variable inputs (21% in the identical group, see Figure 13); for both groups the largest category of inputs in 1998/99 was labour costs, at around 30% of inputs (including farmer and spouse labour and unpaid labour). Proportions of expenditure of different categories were similar in both groups in 1998/99, for the larger sample, variable costs were 25%, labour 31%, machinery 18%, general 10% and land costs 17% of total inputs.

For the identical sample (Figure 13), livestock and machinery costs increased in 1998/99 (19% and 6% respectively); other categories of costs reduced slightly, resulting in very similar total inputs for both years.

Incomes

Because of the increase in outputs and maintenance of input costs on the identical sample of farms, income measures improved between 1997/98 and 1998/99. Average MII was negative both years, but average NFI, ONI and Cash Income became positive in 1998/99. Three of the five farms had negative MII and NFI, only two had negative ONI, and all had positive Cash Incomes.

In the larger group (which included the identical group mentioned above) in 1998/98, average MII, NFI and ONI were negative. Within the group, seven of the farms returned negative MII, six negative NFI and four negative ONI; only one farm showed a negative Cash Income.

Discussion

These results confirm the poor results found in previous work (see reference on page 1). For the larger group of farms in 1998/99 livestock variable inputs were around 43% of outputs (excluding subsidies), and labour costs were 60% of livestock outputs. Despite improvements in total outputs, the inputs were too high to produce adequate returns; seven of the farms failed to achieve a positive return to tenants' capital.

9. LFA cattle and sheep farms

For results see Appendix 1, Table A5, page 52.

Sample

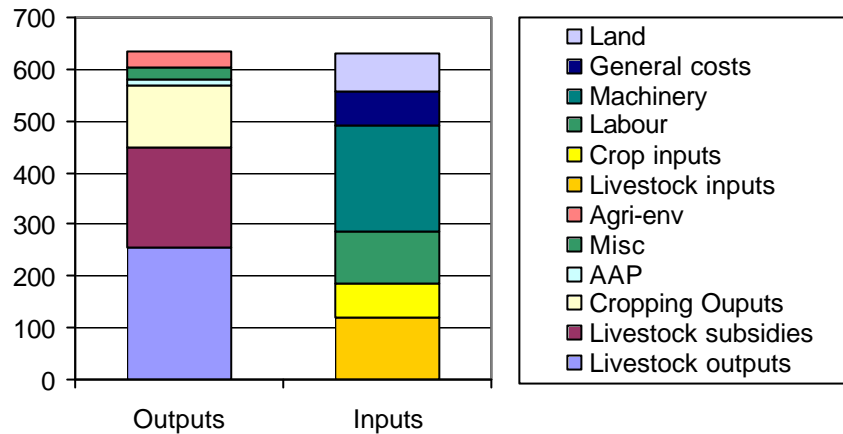
These LFA farms range in size from less than 50 ha UAA to one farm over 300 ha. One farm was classified as a mixed farm, but is presented with the LFA cattle and sheep farms as well as the mixed group (see Chapter 10) to bring the sample to five, and because of its hill characteristics. One other farm in this group had a small area in cash cropping. An identical sample of five farms was not available for both years, so results for 1997/98 are not presented.

Table 7 Summary results for five LFA organic farms (£/farm and £/ha), full sample, 1998/99

	1998/99	
	£/farm	£/ha
Livestock outputs	43,749	256
Livestock subsidies	33,082	193
Cropping outputs	20,303	119
Arable area payments	2,009	12
Miscellaneous	4,074	24
Agri-env. payments	5,238	31
TOTAL OUTPUTS	108,456	634
Livestock inputs	20,351	119
Crop inputs	11,524	67
Labour	17,090	100
Machinery	35,255	206
General	10,738	63
Land	13,187	77
TOTAL INPUTS	108,145	632
Add paid management	0	0
MII	311	2
NFI	12,267	72
ONI	16,451	96
Cash Income	26,768	156

Outputs

Livestock subsidies comprised 43% of total livestock outputs, and 31% of total outputs of these LFA farms in 1998/99. For the four farms surveyed in two years, livestock outputs for each category except sheep outputs increased in 1998/99.

Figure 14 Outputs and inputs, in categories, of five LFA organic farms (£/ha), 1998/99

Difference between columns represents MII.

Inputs

Average input costs per hectare were around half those on lowland cattle and sheep farms, but the proportion of expenditure on machinery was greater on the LFA farms, accounting for 33% of total inputs. Labour costs were less than one third of costs on lowland farms, and only accounted for 16% of total inputs (Figure 14). An identical sample of four farms (not shown) indicated a 71% increase in livestock inputs between 1997/98 and 1998/99, most of which related to more than doubling expenditure on feeds on each farm.

Incomes

Approximately equal average outputs and inputs on these farms resulted in a small positive average MII of £2/ha in 1998/99 (£311 per farm); however, three of the farms showed negative MII for 1998/99. NFI, ONI and Cash Incomes were positive on all farms, and the average ONI was £96/ha, £16,451 per farm.

Discussion

The identical sample of four farms is too small and heterogeneous to allow much information on trends of outputs, inputs or incomes to be gathered.

These results indicate that this sample of LFA organic cattle and sheep farms, whilst heavily dependent on subsidies, was able to achieve profitability in 1998/99. As on lowland cattle and sheep farms, livestock variable inputs amount to a high proportion of direct livestock outputs (46% excluding subsidies).

10. Mixed farms

For detailed results see Appendix 1, Table A6, page 55.

Sample

Data are presented from an identical sample of five farms for 1997/98 and 1998/99. The sample comprises four cropping, cattle and sheep farms, and one cropping and dairy farm. All farms had cattle and sheep enterprises, all had breeding sheep, and four had suckler cows. One farm had other livestock enterprises, and one was within an LFA. The farms were from a wide geographic spread, including north, south, east and central England and Wales. The farms ranged from 40 to over 500ha, and from 14 to 235 ESUs.

Table 8 Summary data for five organic mixed farms (£/farm and £/ha), identical sample, 1997/98–1998/99

	1997/98		1998/99	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	74,812	288	82,964	325
Livestock subsidies	16,631	64	20,638	81
Cropping outputs	76,626	295	64,910	254
Arable area payments	22,459	86	20,041	78
Miscellaneous	14,487	56	6,825	27
Agri-env. payments	3,645	14	3,303	13
TOTAL OUTPUTS	208,661	802	198,681	777
Livestock inputs	19,182	74	28,110	110
Crop inputs	15,080	58	17,823	70
Labour	55,499	213	54,803	214
Machinery	51,867	199	56,361	220
General	18,838	72	17,308	68
Land	34,888	134	34,226	134
TOTAL INPUTS	195,353	751	208,630	816
Add paid management	3,326	13	4,902	19
MII	16,633	64	-5,047	-20
NFI	22,571	87	3,869	15
ONI	30,137	116	8,783	34
Cash Income	34,244	132	28,129	110

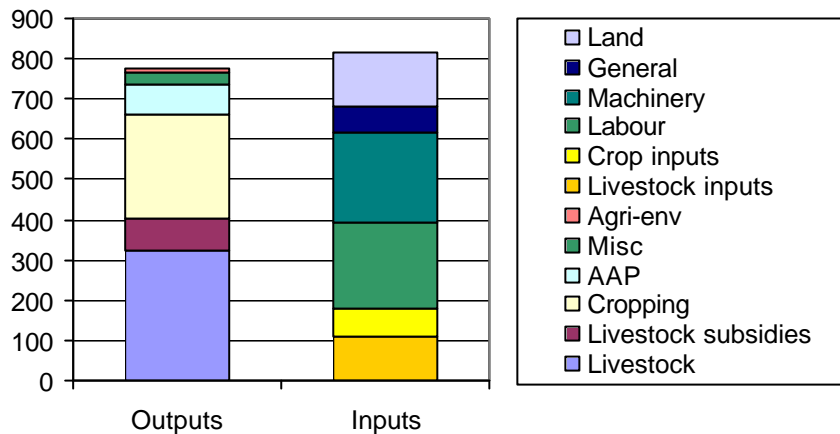
Outputs

Livestock outputs accounted for 52% of total farm outputs in 1998/99, and cropping accounted for 43% of total outputs. Between 1997/98 and 1998/99, whole farm livestock outputs increased, by 11% for direct outputs, and 24% for livestock subsidies. Despite an increase in average area under cereals and cash cropping, whole-farm cropping outputs dropped by 15% in 1998/99, and area

payments dropped by 11%. Average total farm outputs dropped by 5% from nearly £208,630 to £195,353 in 1998/99; individual outputs dropped on three farms, increased slightly on one and was maintained at the same level by the fifth.

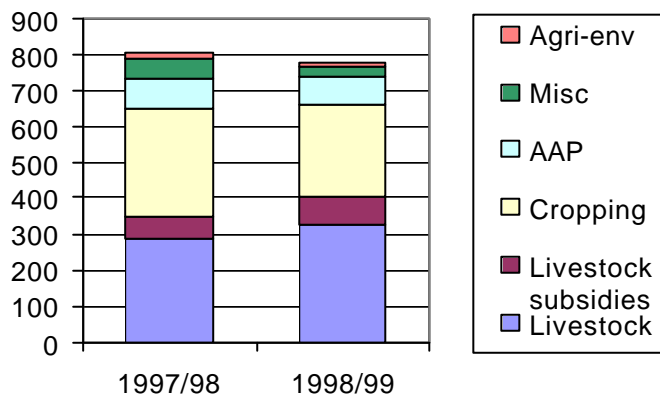
Two of the farms received agri-environmental payments, in both cases this included Organic Aid payments.

Figure 15 Outputs and inputs, in categories, on five organic mixed farms (£/ha), 1998/99



Difference between columns represents MII.

Figure 16 Outputs, in categories, of five mixed farms (£/ha), 1997/98 – 1998/99



Inputs

Labour and machinery inputs accounted for 26% and 27% of inputs respectively in 1998/99, and variable costs accounted for 21% of inputs (see Figure 17). Average whole-farm livestock inputs increased by 47% and cropping inputs by 18% in 1998/99; only general costs were reduced in the second year, and overall inputs were up by 7%.

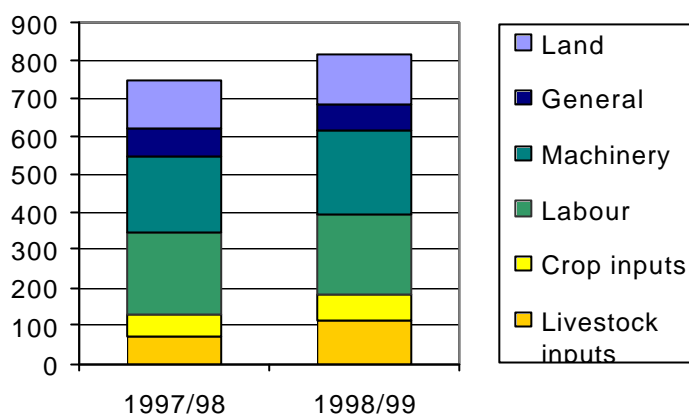


Figure 17 Inputs, in categories, of five mixed farms (£/ha), 1997/98 – 1998/99

Incomes

The combination of average reduced outputs and increased inputs reduced all income measures in 1998/99 compared with the previous year, resulting in an average negative MII of £5,047 per farm (-£20/ha) in 1998/99 (see Table 8 and Figure 15); this figure reflects negative MIIs on three of the five farms. Average NFI, ONI and Cash Income was positive, and individual NFI, ONI and Cash Incomes were positive for four of the five farms.

Discussion

Variable livestock costs were 34% of direct livestock outputs, and variable cropping costs were 27% of direct cropping outputs in 1998/99.

The two largest farms in the group achieved positive returns on tenants' capital.

The change in average ESU between years resulted from changes in cropping on one of the farms. This change also accounts for a 44% reduction in cropping outputs from that farm between 1997/98 and 1998/99, which, in turn, decreased the average cropping output.

11. Gross margins

Tables 9 to 20 present gross margin results for specific livestock and crop enterprises from the organic study farms from 1995/96 to 1998/99. Gross margin figures are for certified organic enterprises, but may include livestock sold at conventional prices. It should also be noted that the gross margin tables do not necessarily contain data from the same farms in all years.

Where gross margin data are not shown for crops in some years, it is because less than five farms in the study grew the crops in those years, or data were insufficiently reliable.

Separate gross margin tables are presented for four years of results for suckler cows (Table 10), separate results for lowland and LFA suckler cow enterprises for 1998/99 (Table 11), finishing beef (Table 12) and for lowland (Table 13) and upland sheep (Table 14).

Care should be taken in assessing the suckler and finishing beef gross margins with standard farm management projections. Some 24-month beef figures base the costs on the purchase of weaned calves at market, whereas the figures in Table 12 assume calves taken in at 12 months (at market price) from the suckler enterprise. Therefore, the suckler enterprise (Table 10) carries the costs of rearing the calves to 12 months, and is credited with the greater value (based on market price) of their transfer to the beef enterprise at that point. As different systems are employed on each farm, assumptions were made concerning the split of feed and veterinary costs to the different cattle enterprises. These assumptions are listed in the tables.

Dairy

Results shown here are from commercial organic dairy farms, including results from mixed farms and lowland cattle and sheep farms with dairy enterprises. It is not an identical sample of farms in each year.

Changes in livestock purchases and sales and transfers, together with increased expenditure on quota in 1998/98 account for most of the reduction in average output in 1998/99 compared with 1997/98.

Compared with 1997/98, increased expenditure on concentrates equates to the slight increase in amount fed per cow but increased dairy other livestock costs accounts for more than half of the increase in variable costs.

Table 9 Dairy gross margins (£/cow), 1996/97 – 1998/99

	1996/97	1997/98	1998/99	1998/99	
				Low 50% ¹	Top 50% ¹
No. of farms	9	9	9	5	5
Size of dairy herd - average number	125	126	102	115	83
Milk yield (litres per cow)	5,227	5,510	5,439	5,525	5,442
L.U. per forage hectare	1.5	1.6	1.4	1.5	1.4
Milk disposals/yield (pence per litre)	28.0	29.4	29.3	29.2	29.8
Milk disposals ²	1,465	1,620	1,596	1,614	1,623
Sales and transfers out - calves	75	87	54	57	52
Sales and transfers out - bulls and cows	84	170	59	66	50
Net milk quota	22	-37	-58	-123	0
Valuation change	0	-6	76	106	35
Less : purchases and transfers in	156	163	171	217	120
Total outputs	1,489	1,671	1,556	1,503	1,641
Concentrates	209	163	206	230	165
Purchased bulk feed	18	7	7	12	3
Stock keep	1	0	0	0	0
Veterinary and medicines	35	36	33	40	30
Other livestock costs - dairy	142	163	216	251	218
Total variable costs	406	369	462	533	416
Gross margin before forage costs	1,083	1,301	1,094	970	1,225
Gross margin including forage costs	1,045	1,260	1,034	911	1,167
Margin over concentrates	1,255	1,448	1,390	1,384	1,458
Concentrates (t/cow)	1.09	0.94	1.18	1.34	0.91
Forage variable costs to dairy	38	41	60	59	59

1. Selected by gross margin before forage costs

2. Including milk to calves and farmhouse

The result of average decreased outputs and increased inputs was a 15% drop in gross margin before forage costs. Combined with the reduction in stocking rate, average gross margins per ha declined by 27% in 1998/99 compared with the previous year.

The farms with dairy enterprises in the top 50% by gross margin before forage costs were well-established organic farms; the bottom 50% includes farms that had recently converted and one farm that had very high quota leasing costs.

Beef

Table 10 Suckler cows gross margins (£/cow), lowland and LFA combined, 1995/96 – 1998/99

	1995/96	1996/97	1997/98	1998/99	1998/99	
	Average	Average	Average	Average	Low28%*	Top 28%*
	<i>e</i>	<i>e</i>	<i>e</i>	<i>e</i>		
No. of farms	20	21	18	18	5	5
No. of cows	36	39	42	39	29	85
Forage costs/LU	41	24	35	42	42	42
Subsidies (1)	110	177	183	208	182	222
Sales/transfers out (2)	267	261	167	203	197	311
Cull stock (3)	77	54	34	57	56	33
Replacement/transfers in	-157	-115	-65	-73	-105	113
Valuation changes	28	28	39	-15	-12	-84
Total outputs	326	406	358	380	318	595
Feed (4)	17	58	29	49	86	48
Veterinary and Medicines (5)	10	13	16	14	15	5
Sundry (5)	30	26	25	27	37	24
Total variable costs	58	97	70	91	138	77
Gross margin before forage costs	268	309	288	289	180	518
Gross margin including forage costs	224	272	252	268	150	485
Allocatable forage costs/cow (6)	44	37	36	21	30	33

* Selected by gross margin before forage costs

Assumptions and notes:

1. SCP and HLCA, 1st BSPS
2. Calf and weaner sales and transfers out at 12 months
3. Cow and Bull sales
4. Feed split 80:20 finishing beef:suckler cows
5. Costs split on a livestock unit basis (finishing beef:suckler cows)
6. Forage costs include forage costs to calves to 12 months.

An average increase in subsidies, sales and transfers out, and cull stock in 1998/99 compared with 1997/98 balanced higher replacement costs and negative valuation changes. However, feed costs increased, but not to the level of 1996/97 costs and sundry costs remained at a similar level, overall resulting in a similar average gross margin to the previous year. Forage costs were lower in 1998/99. Table 11 shows the clear contrast in subsidy receipts on LFA and lowland farms, but also indicates higher average sales per cow on the LFA farms. Feed, veterinary and medicine and sundry costs were higher, and forage costs lower, on the LFA farms, but the gross margin on the LFA farms was higher both including and excluding forage costs. Average finishing beef output was also reduced because of a greater reduction in subsidies and higher transfers in, compared with the higher sales/transfers out. Average sundry costs also increased sharply compared with 1997/98, to give the lowest average gross margin per head.

Table 11 Suckler cows gross margins, lowland and LFA (£/cow), 1998/99

	<i>1998/99</i>	<i>1998/99</i>
	<i>Average of lowland farms</i>	<i>Average of LFA farms</i>
No. of farms	11	7
No. of cows	38	40
Forage costs/LU	42	42
Subsidies (1)	184	247
Sales/transfers out (2)	186	228
Cull stock (3)	55	60
Replacement/transfers in	-4	-181
Valuation changes	-67	66
Total outputs	354	420
Feed (4)	40	64
Veterinary and Medicines (5)	10	22
Sundry (5)	24	31
Total variable costs	74	117
Gross margin before forage costs	280	303
Gross margin including forage costs	254	290
Allocatable forage costs/cow (6)	26	13

* Selected by gross margin before forage costs

Assumptions and notes:

1. SCP and HLCA, 1st BSPS
2. Calf and weaner sales and transfers out at 12 months
3. Cow and Bull sales
4. Feed split 80:20 finishing beef:suckler cows
5. Costs split on a livestock unit basis (finishing beef:suckler cows)
6. Forage costs include forage costs to calves to 12 months.

Table 12 Finishing beef gross margins (£/head), 1995/96 – 1998/99

	1995/96	1996/97	1997/98	1998/99	1998/99	
	Average	Average	Average	Average	Low 38%*	Top 38%*
No. of farms	12	14	12	13	5	5
Enterprise size (head)	39	40	33	38	24	39
Forage costs/LU	18	26	27	29	27	32
Subsidies	65	106	77	43	29	55
Sales/transfers	534	592	486	527	409	643
Transfers/transfers in	-254	-202	-229	-284	-278	-300
Valuation changes	4	-57	48	41	37	46
Total outputs	349	439	382	327	197	445
Feed (1)	79	134	79	81	67	92
Veterinary and medicines (2)	7	9	11	12	16	8
Sundry (2)	34	33	22	40	31	35
Total variable costs	120	176	112	133	113	134
Gross margin before forage costs	229	263	270	194	83	310
Gross margin including forage costs	210	246	255	174	55	297
Allocatable forage costs/head	19	18	15	20	29	13

* Selected by gross margin before forage costs

Assumptions and notes:

1. Feed split 80:20 finishing beef:suckler cows
2. Costs split on a livestock unit basis (finishing beef:suckler cows)

Sheep

The sample for lowland farms includes farms with direct sales; on those farms the final price received has been recorded, and on-farm direct costs of sales included in sundry inputs. Increased subsidies and sales were balanced by a negative valuation changes to bring a very slight increase in average output per ewe in 1998/99. An increase in feed and sundry costs caused an average increase of over £4 in inputs per ewe, and average reductions in gross margins including and excluding forage costs. Average output per upland ewe increased in 1998/99 because of increased subsidies, that balanced reduced prices for cull stock and wool. Average variable costs for upland ewes were lower in 1998/99 than in the previous two years.

Table 13 Lowland farms, breeding sheep gross margins (£/ewe), 1995/96 – 1998/99

	1995/96	1996/97	1997/98	1998/99	1998/99	
	Average	Average	Average	Average	Low 45%*	Top 45%*
No. of farms	17	17	15	11	5	5
No. of Ewes	213	208	213	170	148	198
Forage costs/LU	32	12	15	22	16	21
Rearing %	n/a	111	142	123	106	138
Subsidies	21.8	15.1	13.0	17.3	16.9	17.4
Sales/transfers	53.9	60.8	42.9	49.8	33.3	65.1
Cull stock	8.5	7.0	6.7	6.5	4.7	8.9
Wool	4.0	3.8	3.3	3.1	4.7	1.7
Replacement	-5.4	-6.7	-9.8	-6.0	-7.0	-3.5
Valuation changes	2.7	-1.7	10.8	-2.5	-6.5	1.1
Total output	85.4	78.3	66.9	68.2	46.1	90.6
Feed	10.0	11.7	9.7	12.0	10.0	13.8
Vet & med	3.3	3.6	4.5	4.1	3.5	4.0
Sundry	5.2	5.5	5.0	7.6	7.2	8.3
Total variable costs	18.6	20.8	19.2	23.7	20.7	26.1
Gross margin before forage costs	66.8	57.5	47.6	44.5	25.4	64.5
Gross margin including forage costs	62.1	55.8	45.6	42.1	23.6	62.3
Allocatable forage costs/ewe	4.8	1.5	2.0	2.4	1.8	2.3

* Selected by gross margin before forage costs

Table 14 Upland farms, breeding sheep gross margins (£/ewe), 1995/96 – 1998/99

	<i>1995/96</i>	<i>1996/97</i>	<i>1997/98</i>	<i>1998/99</i>
	<i>Average</i>	<i>Average</i>	<i>Average</i>	<i>Average</i>
Farm No	7	10	10	7
No. of Ewes	440	443	356	519
Forage costs/LU	16	19	31	12
Rearing %	n/a	109	104	111
Output				
Subsidies	30.5	23.7	21.8	31.7
Sales/transfers	24.0	33.2	36.5	28.5
Cull stock	3.3	6.2	7.9	3.4
Wool	2.4	2.0	2.2	1.8
Replacement	-3.0	-4.5	-4.7	-3.6
Valuation changes	2.4	2.4	2.0	7.7
Total output	59.5	63.0	65.8	69.5
Variable costs				
Feed	3.2	6.5	6.1	5.5
Vet & med	3.3	2.7	3.2	2.0
Sundry	2.5	3.0	3.0	2.6
Total variable costs	9.0	12.2	12.3	10.1
Gross margin before forage costs	50.6	50.8	53.4	59.4
Gross margin including forage costs	45.7	49.0	50.4	56.0
Allocatable forage costs/ewe	4.8	1.8	3.0	3.4

* Selected by gross margin before forage costs

Crops

Twenty-one different crop enterprise gross margins were collected, but few crops had sufficient samples to validate results. Gross margins are presented for six crops for the 1998/99 harvest year. It should be noted that the gross margin figures for the different enterprises on different years are not necessarily from the same farms. There was no clear pattern in yield changes between 1997 and 1998 crop harvests over the different enterprises. The data exclude subsidy income to enable production factors and price trends to be studied in isolation from subsidy income. For conversion to actual enterprise gross margins the relevant subsidy level can be added. The gross margin trends for crop enterprises are strongly influenced by the combination of yield levels and price received.

Table 15 Gross margins for winter wheat (£/ha), 1995/96 – 1998/99

	1995/96	1996/97	1997/98	1998/99	1998/99	
	Average	Average	Average	Average	Low 36%	Top 36%
No of farms	13	12	13	14	5	5
Size (ha)	37	36	39	21	14	40
Yield (t/ha)	3.7	4.6	4.0	3.6	2.0	4.2
Value (£/t)	217	217	180	191	177	194
Total outputs	806	991	716	694	353	818
Seeds	50	57	46	64	55	69
Fertilisers	4	4	0	2	0	0
Sprays	1	0	0	0	0	0
Other	3	2	3	3	0	4
Total variable costs	58	62	49	69	55	73
Gross margin	748	929	667	624	298	745

Table 16 Gross margins for spring wheat (£/ha), 1995/96 – 1998/99

	1995/96	1996/97	1997/98	1998/99	1998/99	
	Average	Average	Average	Average	Low 50%	Top 50%
No of farms	6	7	7	10	5	5
Size (ha)	12	21	17	21	20	22
Yield (t/ha)	2.7	3.0	3.3	3.1	2.5	3.6
Value (£/t)	214	204	176	179	179	178
Total outputs	583	608	577	553	453	647
Seeds	54	68	58	71	68	74
Fertilisers	0	1	2	0	0	0
Sprays	0	2	4	5	11	0
Other	0	2	11	6	0	12
Total variable costs	54	72	75	83	79	86
Gross margin	528	535	635	470	374	561

Table 17 Gross margins for winter oats (£/ha), 1995/96 and 1998/99

	1995/96	1998/99
No of farms	9	6
Size (ha)	12	18
Yield (t/ha)	3.8	4.2
Value (£/t)	155	153
Total outputs	584	634
Seeds	58	54
Fertilisers	6	0
Sprays	2	0
Other	2	0
Total variable costs	68	54
Gross margin	516	580

Table 18 Gross margins for spring oats (£/ha), 1995/96 – 1996/97 and 1998/99

	1995/96	1996/97	1998/99
No of farms	7	5	7
Size (ha)	21	17	12
Yield (t/ha)	3.8	4.0	3.9
Value (£/t)	157	153	167
Total outputs	596	615	648
Seeds	60	65	60
Fertilisers	24	15	0
Sprays	2	0	0
Other	29	2	3
Total variable costs	115	83	63
Gross margin	481	532	585

Table 19 Gross margins for spring barley (£/ha), 1996/97 and 1998/99

	1996/97	1998/99
No of farms	6	6
Size (ha)	6	7
Yield (t/ha)	3.7	3.2
Value (£/t)	174	175
Total outputs	650	563
Seeds	62	54
Fertilisers	0	0
Sprays	0	0
Other	1	0
Total variable costs	63	54
Gross margin	587	509

Table 20 Gross margins for potatoes (£/ha), 1996/97 and 1998/99

	<i>1996/97</i>	<i>1998/99</i>	<i>1998/99</i>	
	<i>Average</i>	<i>Average</i>	<i>Low45%</i>	<i>Top 45%</i>
No of farms	6	11	5	5
Size (ha)	4	11	10	3
Yield (t/ha)	24.5	16	11.2	30.9
Value (£/t)	216	331	256	382
Total outputs	5,298	5,252	2,868	11,821
Seeds	858	550	606	526
Fertilisers	56	62	75	42
Sprays	69	49	62	31
Casual labour	72	135	113	0
Other	379	169	245	55
Total variable costs	1,434	965	1,101	654
Gross margin	3,864	4,287	1,767	11,167

Appendices

Appendix 1 Detailed farm results

Table A1. Results of organic cropping farms

		<i>Identical sample</i>			
		1997/98		1998/99	
		<u>£/farm</u>	<u>£/ha</u>	<u>£/farm</u>	<u>£/ha</u>
No of Farms		5		5	
ESU per farm		85		86	
Utilisable agricultural area (effective ha)		129		130	
Area organic or in conversion. (%)		84		96	
OUTPUTS, INPUTS & INCOMES		<u>£/farm</u>	<u>£/ha</u>	<u>£/farm</u>	<u>£/ha</u>
OUTPUTS					
Dairy	output	0	0	0	0
	net quota	0	0	0	0
Other cattle	output	15,929	123	22,443	173
	subsidies	9,709	75	6,692	52
Sheep -	output	4,532	35	5,110	39
	subsidies	947	7	1,693	13
Other livestock		417	3	437	3
Main crops	output	89,997	697	108,970	841
	subsidies	19,867	154	18,040	139
By-products, forage and cultivations		146	1	1,493	12
	subsidies (set-aside)	1,928	15	1,713	13
Miscellaneous		4,713	37	6,695	52
	- organic grants	1,367	11	1,708	13
	- other agri-env.payments	1,021	8	1,708	13
	TOTAL OUTPUTS	150,572	1,167	176,702	1,363
INPUTS					
Feeds	purchased concentrates	2,166	17	2,804	22
	homegrown concentrates	1,924	15	2,166	17
Purchased fodder, Tack and stock keep		2,769	21	397	3
Veterinary and medicines		952	7	1,003	8
Other livestock costs		3,548	27	2,485	19
Seeds -	purchased and homegrown	8,528	66	9,369	72
Fertilisers		2,036	16	1,146	9
Crop protection		2,604	20	1,686	13
Other crop costs		2,911	23	3,413	26
Labour	farmer & spouse (manual only)	8,930	69	7,600	59
	paid incl. paid management	33,863	262	43,791	338
	unpaid	0	0	0	0
	casual	860	7	192	1
Machinery	contract	5,853	45	7,451	57
	repairs	10,106	78	8,276	64
	fuels	3,273	25	3,161	24
	depreciation	8,877	69	16,894	130
General farming costs		14,270	111	12,294	95
Land expenses		3,155	24	3,473	27
Rent		8,612	67	10,397	80
Rental value		10,863	84	10,592	82
	TOTAL INPUTS	136,102	1,054	148,589	1,147
	Add back managerial input of paid manager	3,240	25	3,400	26
	MANAGEMENT AND INVESTMENT INCOME	17,711	137	31,513	243
	Add back farmer and spouse labour	8,930	69	7,600	59
	Deduct managerial input of paid manager	3,240	25	3,400	26
	NET FARM INCOME (inc. BLSA)	23,401	181	35,713	276
	NET FARM INCOME (excl. BLSA)	23,401	181	36,374	281

Table A1. Results of organic cropping farms

INCOME MEASURES	1997/98		1998/99	
	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	23,401	181	36,374	281
plus net rental value/imputed rent	10,370	80	10,592	82
minus occupier's expenses	45	0	508	4
minus interest payments	3,474	27	4,286	33
minus buildings & works depreciation	3,998	31	3,891	30
OCCUPIER'S NET INCOME	26,253	203	38,281	295
plus other imputed charges	1,600	12	0	0
plus fixed asset depreciation	15,639	121	18,749	145
minus valuation changes	-699	-5	-480	-4
CASH INCOME	44,191	342	57,510	444
TENANT'S CAPITAL - £ per farm	£/farm	£/ha	£/farm	£/ha
Machinery	85,703	664	100,986	779
Livestock	49,235	381	48,344	373
Crops	44,385	344	34,043	263
Stores	5,052	39	7,582	59
TOTAL	184,375	1,428	190,954	1,473
PERFORMANCE INDICATORS				
Stocking rate (LU per eff.ha)		0.6		0.6
GLU/forage effective hectare*		1.6		1.5
Owner Equity (%)		88.9		89.0
ONI/Net worth (%)		6.0		8.2
Return on tenant's capital (%)		9.6		16.5
Return on all capital (%)		5.3		8.0
Annual labour units		3.2		5.2
of which farmer & spouse		0.8		0.9
LAND UTILISATION - hectares per farm		ha		ha
Cereals and cash crops		77.7		74.7
Roots, fodder and other crops		0.6		1.4
Total grassland		45.0		45.3
Fallow, land let and set aside		5.9		8.1
Rough grazing - sole (Effective ha)		0.0		0.0
Utilisable agricultural area (Effective ha)		129.1		129.6
Rough grazing - common (Effective ha)		0.0		0.0
Woods, roads and buildings		10.0		10.0
TOTAL AREA (Actual ha)		139.1		140.1
Effective forage area (ha)		45.2		47.7

* for organic farms, pigs, poultry and other livestock are deemed to be grazing livestock

Table A1. Results of organic cropping farms

LIVESTOCK CARRIED - per farm	<i>Identical sample</i>			
	1997/98		1998/99	
	Average Number	LU	Average Number	LU
Dairy cows	0.0	0.0	0.0	0.0
Beef cows	31.4	24.1	33.0	24.8
Other cattle	72.6	36.7	67.3	36.4
Breeding sheep	72.4	7.9	71.2	6.6
Other sheep	63.3	2.7	100.6	4.0
Pigs	0.0	0.0	0.0	0.0
Poultry	0.0	0.0	60.0	0.2
Other livestock	0.0	0.0	0.0	0.0
TOTAL (L.U.)		71.4		71.9

ASSETS - £ per farm	Opening	Closing	Opening	Closing
	Value	Value	Value	Value
Land and Property	239,025	238,673	238,673	238,671
Buildings, improvements and fixtures	20,912	23,217	23,217	28,705
Machinery	73,361	98,046	98,046	103,926
Livestock	48,877	49,593	46,532	50,155
Produce and goods in store	55,922	42,955	43,736	39,514
Quotas	4,274	3,726	3,726	4,447
Credit balances	65,147	37,611	40,734	55,816
TOTAL	507,516	493,821	494,664	521,233

EXTERNAL LIABILITIES				
	Opening	Closing	Opening	Closing
Long and medium term loans	52,066	39,611	41,297	35,620
Short term loans	7,286	12,408	9,781	10,338
Overdrafts	4,429	2,702	4,512	11,234
TOTAL	63,781	54,722	55,590	57,191

NET WORTH	1997/98	1998/99
	443,734	439,099
	439,074	464,042

Table A2. Results of organic horticultural holdings

		1998/99	
No of Farms		5	
ESU per farm		29	
Utilisable agricultural area (effective ha)		9	
Area organic or in conversion. (%)		100	
OUTPUTS, INPUTS & INCOMES		£/farm	£/ha
OUTPUTS			
Dairy	output	0	0
	net quota	0	0
Other cattle	output	140	16
	subsidies	90	10
Sheep -	output	79	9
	subsidies	0	0
Other livestock		242	27
Main crops	output	59,415	6,705
	subsidies	0	0
By-products, forage and cultivations		90	10
	subsidies (set-aside)	0	0
Miscellaneous		1,316	148
	- organic grants	171	19
	- other agri-env.payments	0	0
TOTAL OUTPUTS		61,545	6,945
INPUTS			
Feeds	purchased concentrates	577	65
	homegrown concentrates	0	0
Purchased fodder, Tack and stock keep		0	0
Veterinary and medicines		44	5
Other livestock costs		271	31
Seeds -	purchased and homegrown	6,550	739
Fertilisers		1,683	190
Crop protection		614	69
Other crop costs		8,074	911
Labour	farmer & spouse (manual only)	16,850	1901
	paid incl. paid management	10,772	1216
	unpaid	3,082	348
	casual	436	49
Machinery	contract	191	22
	repairs	2,211	250
	fuels	1,249	141
	depreciation	2,851	322
General farming costs		4,024	454
Land expenses		149	17
Rent		255	29
Rental value		2,325	262
TOTAL INPUTS		62,209	7,020
Add back managerial input of paid manager		0	0
MANAGEMENT AND INVESTMENT INCOME		-664	-75
Add back farmer and spouse labour		16,850	1,901
Deduct managerial input of paid manager		0	0
NET FARM INCOME (inc. BLSA)		16,186	1,826
NET FARM INCOME (excl. BLSA)		16,268	1,836

Table A2. Results of organic horticultural holdings

INCOME MEASURES	1998/99	
	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	16,268	1,836
plus net rental value/imputed rent	2,325	262
minus occupier's expenses	2,802	316
minus interest payments	1,841	208
minus buildings & works depreciation	1,057	119
OCCUPIER'S NET INCOME	12,894	1,455
plus other imputed charges	3,693	417
plus fixed asset depreciation	3,908	441
minus valuation changes	-88	-10
CASH INCOME	20,583	2,323
TENANT'S CAPITAL - £ per farm	£/farm	£/ha
Machinery	14,635	1,651
Livestock	921	104
Crops	3,081	348
Stores	1,385	156
TOTAL	20,022	2,259
PERFORMANCE INDICATORS		
Owner Equity (%)		79.8
ONI/Net worth (%)		18.5
Return on tenant's capital (%)		-3.3
Return on all capital (%)		-0.5
Annual labour units		3.1
of which farmer & spouse		1.9
LAND UTILISATION - hectares per farm		ha
Cereals and cash crops		6.0
Roots, fodder and other crops		0.0
Total grassland		0.6
Fallow, land let and set aside		1.9
Rough grazing - sole (Effective ha)		0.4
Utilisable agricultural area (Effective ha)		8.9
Rough grazing - common (Effective ha)		0.0
Woods, roads and buildings		0.4
TOTAL AREA (Actual ha)		10.5
Effective forage area (ha)		1.4

Table A2. Results of organic horticultural holdings

LIVESTOCK CARRIED - per farm	1998/99	
	Average Number	LU
Dairy cows	0.0	0.0
Beef cows	0.5	0.4
Other cattle	0.7	0.4
Breeding sheep	5.4	0.6
Other sheep	3.4	0.3
Pigs	0.0	0.0
Poultry	30.0	0.0
Other livestock	0.6	0.0
TOTAL (L.U.)		1.6

ASSETS - £ per farm	Opening Value	Closing Value
Land and Property	47,142	47,142
Buildings, improvements and fixtures	3,556	7,106
Machinery	14,433	14,837
Livestock	938	903
Produce and goods in store	4,493	4,439
Quotas	46	46
Credit balances	15,425	12,997
TOTAL	86,033	87,471

EXTERNAL LIABILITIES		
Long and medium term loans	12,829	12,017
Short term loans	3,553	3,902
Overdrafts	504	1,712
TOTAL	16,887	17,631

NET WORTH	69,146	69,840
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Table A3. Results of organic dairy farms

	<i>Identical sample</i>				<i>Full sample</i>		
	1997/98		1998/99		1998/99		
No of Farms	5		5		8		
ESU per farm	52		54		114		
Utilisable agricultural area (effective ha)	65		65		133		
Area organic or in conversion. (%)	100		100		100		
OUTPUTS, INPUTS & INCOMES	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha	
OUTPUTS							
Dairy	output	79,934	1,236	88,947	1,374	154,560	1,164
	net quota	-167	-3	-973	-15	-18,010	-136
Other cattle	output	9,024	140	6,129	95	16,134	122
	subsidies	47	1	62	1	444	3
Sheep -	output	792	12	837	13	705	5
	subsidies	151	2	140	2	87	1
Other livestock		0	0	675	10	422	3
Main crops	output	6,987	108	7,002	108	39,068	294
	subsidies	1,792	28	1,069	17	8,330	63
By-products, forage and cultivations		1,930	30	739	11	4,791	36
	subsidies (set-aside)	0	0	0	0	447	3
Miscellaneous		2,647	41	1,297	20	2,653	20
	- organic grants	813	13	424	7	1,953	15
	- other agri-env.payments	743	11	1,894	29	1,184	9
	TOTAL OUTPUTS	104,693	1,619	108,240	1,672	212,768	1,603
INPUTS							
Feeds	purchased concentrates	8,263	128	7,615	118	18,285	138
	homegrown concentrates	3,527	55	6,157	95	8,155	61
	Purchased fodder, Tack and stock keep	290	4	1,848	29	3,212	24
	Veterinary and medicines	2,363	37	2,617	40	4,412	33
	Other livestock costs	7,950	123	13,141	203	21,441	162
Seeds -	purchased and homegrown	2,878	45	2,640	41	8,990	68
	Fertilisers	804	12	103	2	1,921	14
	Crop protection	77	1	0	0	856	6
	Other crop costs	519	8	1,008	16	6,012	45
Labour	farmer & spouse (manual only)	11,811	183	10,500	162	11,144	84
	paid incl. paid management	6,487	100	6,691	103	31,204	235
	unpaid	2,143	33	4,090	63	2,932	22
	casual	670	10	274	4	4,650	35
Machinery	contract	5,266	81	5,218	81	13,338	100
	repairs	4,816	74	5,642	87	10,026	76
	fuels	2,351	36	1,502	23	3,117	23
	depreciation	6,888	107	3,860	60	11,340	85
	General farming costs	9,215	143	7,599	117	16,534	125
	Land expenses	2,869	44	2,042	32	6,302	47
	Rent	2,160	33	2,190	34	6,153	46
	Rental value	5,880	91	6,383	99	10,629	80
	TOTAL INPUTS	87,212	1,349	91,119	1,408	200,652	1,512
	Add back managerial input of paid manager	0	0	0	0	0	0
	MANAGEMENT AND INVESTMENT INCOME	17,481	270	17,121	265	12,116	91
	Add back farmer and spouse labour	11,811	183	10,500	162	11,144	84
	Deduct managerial input of paid manager	0	0	0	0	0	0
	NET FARM INCOME (inc. BLSA)	29,291	453	27,621	427	23,260	175
	NET FARM INCOME (excl. BLSA)	28,732	444	31,517	487	26,566	200

Table A3. Results of organic dairy farms

	Identical sample				Full sample	
	1997/98		1998/99		1998/99	
INCOME MEASURES	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	28,732	444	31,517	487	26,566	200
plus net rental value/imputed rent	5,880	91	6,132	95	10,472	79
minus occupier's expenses	167	3	346	5	591	4
minus interest payments	8,262	128	7,070	109	15,516	117
minus buildings & works depreciation	1,803	28	2,139	33	22,046	166
OCCUPIER'S NET INCOME	24,380	377	28,095	434	-1,115	-8
plus other imputed charges	1,079	17	3,863	60	2,251	17
plus fixed asset depreciation	8,690	134	5,999	93	33,386	252
minus valuation changes	-77	-1	-2,846	-44	1,951	15
CASH INCOME	34,226	529	40,803	630	32,572	245
TENANT'S CAPITAL - £ per farm	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
Machinery	35,507	549	36,631	566	81,609	615
Livestock	47,946	741	47,436	733	80,380	606
Crops	1,402	22	3,369	52	9,885	74
Stores	4,185	65	1,033	16	7,559	57
TOTAL	89,040	1,377	88,469	1,367	179,433	1,352
PERFORMANCE INDICATORS						
Milk yield per cow (litres)		5,676		5,457		5,407
Milk sales per cow (£)		1,412		1,565		1,483
Margin over concentrates per cow (£)		1,270		1,381		1,293
Lambs reared per ewe (nos.)		0.5		0		0
Fat lamb sales per ewe (nos.)		n/a		0		0
Stocking rate (LU per eff.ha)		1.3		1.3		1.1
GLU/forage effective hectare*		1.4		1.5		1.5
Owner Equity (%)		84.8		83.8		77.0
ONI/Net worth (%)		5.9		6.9		-0.2
Return on tenant's capital (%)		19.0		19.4		6.8
Return on all capital (%)		4.0		4.0		2.1
Annual labour units		2.0		2.0		4.2
of which farmer & spouse		1.2		1.1		1.1
LAND UTILISATION - hectares per farm		ha		ha		ha
Cereals and cash crops		4.2		7.6		35.0
Roots, fodder and other crops		6.3		2.5		12.1
Total grassland		50.8		53.5		84.9
Fallow, land let and set aside		0.0		0.0		0.0
Rough grazing - sole (Effective ha)		0.0		1.1		0.7
Utilisable agricultural area (Effective ha)		64.7		64.7		132.7
Rough grazing - common (Effective ha)		0.0		0.0		0.0
Woods, roads and buildings		3.5		5.0		7.0
TOTAL AREA (Actual ha)		68.2		71.1		143.9
Effective forage area (ha)		57.1		57.1		98.3

* for organic farms, pigs, poultry and other livestock are deemed to be grazing livestock

Table A3. Results of organic dairy farms

	<i>Identical sample</i>				<i>Full sample</i>	
	<u>1997/98</u>		<u>1998/99</u>		<u>1998/99</u>	
LIVESTOCK CARRIED - per farm	Average		Average		Average	
	Number	LU	Number	LU	Number	LU
Dairy cows	53.8	53.8	58.3	58.3	97.0	97.0
Beef cows	0.0	0.0	0.0	0.0	0.0	0.0
Other cattle	40.9	24.3	42.1	22.8	83.1	46.3
Breeding sheep	10.2	1.1	16.9	1.6	10.5	1.0
Other sheep	9.5	0.9	7.9	0.3	4.9	0.2
Pigs	0.0	0.0	0.0	0.0	0.0	0.0
Poultry	0.0	0.0	0.0	0.0	0.0	0.0
Other livestock	1.8	1.7	2.5	1.5	1.6	0.9
TOTAL (L.U.)	81.2		84.6		145.5	
ASSETS - £ per farm	Opening Value	Closing Value	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	214,341	221,001	222,129	222,129	448,532	428,424
Buildings, improvements and fixtures	10,717	11,062	13,322	12,949	115,478	96,869
Machinery	33,194	37,820	35,753	37,509	83,171	80,047
Livestock	46,744	49,148	48,222	46,649	79,187	81,573
Produce and goods in store	5,622	5,552	4,950	3,854	17,337	17,551
Quotas	149,020	154,635	155,216	155,216	145,434	145,434
Credit balances	5,494	11,043	8,127	4,508	23,356	19,635
TOTAL	465,134	490,261	487,720	482,814	912,494	869,533
EXTERNAL LIABILITIES						
Long and medium term loans	33,116	31,224	31,800	32,063	47,966	87,819
Short term loans	6,137	5,459	4,928	5,620	80,592	32,274
Overdrafts	33,292	37,695	37,935	40,314	85,672	79,905
TOTAL	72,544	74,378	74,663	77,996	214,230	199,998
NET WORTH	392,590	415,883	413,057	404,818	698,264	669,535

Table A4. Results of organic lowland cattle and sheep farms

	<i>Identical sample</i>				<i>Full sample</i>	
	1997/98		1998/99		1998/99	
	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
No of Farms	5		5		9	
ESU per farm	25		24		49	
Utilisable agricultural area (effective ha)	58		59		100	
Area organic or in conversion. (%)	100		100		100	
OUTPUTS, INPUTS & INCOMES						
OUTPUTS						
Dairy output	0	0	109	2	21,588	217
net quota	0	0	0	0	677	7
Other cattle output	9,562	165	12,107	207	15,620	157
subsidies	6,437	111	6,710	115	5,391	54
Sheep - output	11,771	203	11,724	200	13,674	137
subsidies	2,461	42	3,545	61	3,881	39
Other livestock	-284	-5	0	0	10,489	105
Main crops output	1,315	23	368	6	12,614	127
subsidies	980	17	570	10	4,389	44
By-products, forage and cultivations	457	8	747	13	1,058	11
subsidies (set-aside)	0	0	0	0	803	8
Miscellaneous	2,354	41	4,533	77	5,331	54
- organic grants	2,025	35	2,017	34	1,717	17
- other agri-env.payments	1,477	25	2,290	39	2,239	22
TOTAL OUTPUTS	38,556	664	44,720	764	99,471	999
INPUTS						
Feeds purchased concentrates	2,831	49	3,042	52	12,860	129
homegrown concentrates	726	12	924	16	2,640	27
Purchased fodder, Tack and stock keep	98	2	856	15	836	8
Veterinary and medicines	1,529	26	1,447	25	2,524	25
Other livestock costs	3,751	65	4,405	75	7,928	80
Seeds - purchased and homegrown	302	5	339	6	2,216	22
Fertilisers	774	13	372	6	368	4
Crop protection	0	0	7	0	9	0
Other crop costs	218	4	302	5	1,006	10
Labour farmer & spouse (manual only)	7,980	137	8,248	141	9,423	95
paid incl. paid management	8,096	139	6,974	119	23,218	233
unpaid	165	3	170	3	2,253	23
casual	1,039	18	900	15	2,176	22
Machinery contract	1,961	34	2,274	39	3,252	33
repairs	2,360	41	2,472	42	6,936	70
fuels	1,453	25	783	13	3,130	31
depreciation	3,149	54	3,963	68	8,086	81
General farming costs	6,200	107	5,370	92	11,880	119
Land expenses	2,355	41	1,963	34	3,937	40
Rent	4,539	78	4,686	80	3,039	31
Rental value	6,381	110	6,637	113	13,310	134
TOTAL INPUTS	55,906	962	56,135	960	121,026	1,216
Add back managerial input of paid manager	0	0	0	0	3,443	35
MANAGEMENT AND INVESTMENT INCOME	-17,350	-299	-11,415	-195	-18,112	-182
Add back farmer and spouse labour	7,980	137	8,248	141	9,423	95
Deduct managerial input of paid manager	0	0	0	0	3,443	35
NET FARM INCOME (inc. BLSA)	-9,370	-161	-3,167	-54	-12,132	-122
NET FARM INCOME (excl. BLSA)	-9,370	-161	412	7	-8,077	-81

Table A4. Results of organic lowland cattle and sheep farms

INCOME MEASURES	<i>Identical sample</i>				<i>Full sample</i>	
	1997/98		1998/99		1998/99	
	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	-9,370	-161	412	7	-8,077	-81
plus net rental value/imputed rent	6,381	110	6,637	113	13,310	134
minus occupier's expenses	0	0	560	10	510	5
minus interest payments	33	1	0	0	0	0
minus buildings & works depreciation	3,668	63	4,072	70	8,692	87
OCCUPIER'S NET INCOME	-6,690	-115	2,417	41	-3,969	-40
plus other imputed charges	-1,725	-30	1,435	25	3,581	36
plus fixed asset depreciation	6,817	117	8,034	137	16,777	169
minus valuation changes	5,167	89	-4,012	-69	-5,750	-58
CASH INCOME	-6,766	-116	15,898	272	22,140	222
TENANT'S CAPITAL - £ per farm	£/farm	£/ha	£/farm	£/ha	£/farm	£/ha
Machinery	24,558	423	27,958	478	48,318	485
Livestock	46,706	804	47,629	814	65,549	658
Crops	1,456	25	1,354	23	5,767	58
Stores	834	14	875	15	2,456	25
TOTAL	73,554	1,266	77,816	1,330	122,090	1,226
PERFORMANCE INDICATORS						
Lambs reared per ewe (nos.)		1.4		1.3		1.2
Fat lamb sales per ewe (nos.)		0.7		0.8		0.8
Stocking rate (LU per eff.ha)		1.5		1.5		1.1
GLU/forage effective hectare*		1.6		1.6		1.3
Owner Equity (%)		99.9		99.6		99.3
ONI/Net worth (%)		-2.0		0.7		-0.5
Return on tenant's capital (%)		-23.6		-14.7		-14.8
Return on all capital (%)		-3.9		-2.1		-1.8
Annual labour units		1.4		1.6		3.3
of which farmer & spouse		0.9		0.9		1.0
LAND UTILISATION - hectares per farm		ha		ha		ha
Cereals and cash crops		3.5		0.8		14.7
Roots, fodder and other crops		0.0		1.6		4.5
Total grassland		54.3		55.9		74.1
Fallow, land let and set aside		0.0		0.0		0.0
Rough grazing - sole (Effective ha)		0.2		0.2		6.3
Utilisable agricultural area (Effective ha)		58.1		58.5		99.6
Rough grazing - common (Effective ha)		0.0		0.0		0.0
Woods, roads and buildings		4.9		4.9		5.3
TOTAL AREA (Actual ha)		64.5		64.9		153.5
Effective forage area (ha)		54.6		57.7		84.8

* for organic farms, pigs, poultry and other livestock are deemed to be grazing livestock

Table A4. Results of organic lowland cattle and sheep farms

	<i>Identical sample</i>				<i>Full sample</i>	
	1997/98		1998/99		1998/99	
LIVESTOCK CARRIED - per farm	Average		Average		Average	
	Number	LU	Number	LU	Number	LU
Dairy cows	0.2	0.2	0.2	0.2	15.0	15.0
Beef cows	29.6	22.2	28.9	21.6	30.8	23.1
Other cattle	54.2	30.2	60.0	32.7	67.0	36.1
Breeding sheep	241.4	25.3	226.0	23.3	252.0	26.0
Other sheep	192.6	8.1	297.5	12.3	264.5	10.9
Pigs	0.0	0.0	0.0	0.0	12.3	0.5
Poultry	0.0	0.0	0.0	0.0	529.7	0.0
Other livestock	2.8	0.4	1.6	0.5	4.2	2.0
TOTAL (L.U.)	86.2		90.6		113.6	
 ASSETS - £ per farm	Opening Value	Closing Value	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	216,426	216,426	216,426	216,426	551,196	551,196
Buildings, improvements and fixtures	21,137	20,126	20,126	19,971	37,234	31,636
Machinery	22,004	27,111	27,111	28,806	48,162	48,475
Livestock	45,637	47,775	47,775	47,482	66,232	64,866
Produce and goods in store	2,079	2,501	2,501	1,957	8,490	7,956
Quotas	8,489	6,614	6,614	6,614	48,038	48,038
Credit balances	13,474	6,718	6,718	6,615	73,356	84,164
TOTAL	329,248	327,271	327,271	327,871	832,707	836,330
 EXTERNAL LIABILITIES						
Long and medium term loans	0	0	0	0	0	0
Short term loans	1,759	312	312	449	2,511	1,184
Overdrafts	0	0	0	820	3,894	4,344
TOTAL	1,759	312	312	1,269	6,404	5,529
 NET WORTH	327,490	326,959	326,959	326,602	826,302	830,801

Table A5. Results of organic LFA cattle and sheep farms

(Includes one LFA mixed farm)

		1998/99	
No of Farms		5	
ESU per farm		37	
Utilisable agricultural area (effective ha)		171	
Area organic or in conversion. (%)		100	
OUTPUTS, INPUTS & INCOMES		£/farm	£/ha
OUTPUTS			
Dairy	output	0	0
	net quota	0	0
Other cattle	output	17,277	101
	subsidies	13,605	80
Sheep -	output	24,638	144
	subsidies	19,477	114
Other livestock		1,834	11
Main crops	output	20,254	118
	subsidies	1,671	10
By-products, forage and cultivations		49	0
	subsidies (set-aside)	338	2
Miscellaneous		4,074	24
	- organic grants	871	5
	- other agri-env.payments	4,367	26
TOTAL OUTPUTS		108,456	634
INPUTS			
Feeds	purchased concentrates	12,688	74
	homegrown concentrates	0	0
Purchased fodder, Tack and stock keep		59	0
Veterinary and medicines		5,932	35
Other livestock costs		1,673	10
Seeds -	purchased and homegrown	2,949	17
Fertilisers		8,196	48
Crop protection		80	0
Other crop costs		300	2
Labour	farmer & spouse (manual only)	11,956	70
	paid incl. paid management	5,133	30
	unpaid	0	0
	casual	0	0
Machinery	contract	15,610	91
	repairs	4,684	27
	fuels	3,390	20
	depreciation	11,572	68
General farming costs		10,738	63
Land expenses		1,325	8
Rent		1,333	8
Rental value		10,529	62
TOTAL INPUTS		108,145	632
Add back managerial input of paid manager		0	0
MANAGEMENT AND INVESTMENT INCOME		311	2
Add back farmer and spouse labour		11,956	70
Deduct managerial input of paid manager		0	0
NET FARM INCOME (inc. BLSA)		12,267	72
NET FARM INCOME (excl. BLSA)		12,267	72

Table A5. Results of organic LFA cattle and sheep farms

INCOME MEASURES	1998/99	
	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	12,267	72
plus net rental value/imputed rent	11,001	64
minus occupier's expenses	0	0
minus interest payments	2,925	17
minus buildings & works depreciation	3,892	23
OCCUPIER'S NET INCOME	16,451	96
plus other imputed charges	0	0
plus fixed asset depreciation	15,464	90
minus valuation changes	5,147	30
CASH INCOME	26,768	156
TENANT'S CAPITAL - £ per farm	£/farm	£/ha
Machinery	45,581	266
Livestock	78,730	460
Crops	0	0
Stores	13,964	82
TOTAL	138,274	808
PERFORMANCE INDICATORS		
Lambs reared per ewe (nos.)		1.1
Stocking rate (LU per eff.ha)		0.9
GLU/forage effective hectare*		1.1
Owner Equity (%)		87.8
ONI/Net worth (%)		1.9
Return on tenant's capital (%)		0.2
Return on all capital (%)		0.2
Annual labour units		1.8
of which farmer & spouse		1.3
LAND UTILISATION - hectares per farm		ha
Cereals and cash crops		18.8
Roots, fodder and other crops		3.3
Total grassland		133.1
Fallow, land let and set aside		1.6
Rough grazing - sole (Effective ha)		14.2
Utilisable agricultural area (Effective ha)		171.1
Rough grazing - common (Effective ha)		0.0
Woods, roads and buildings		52.0
TOTAL AREA (Actual ha)		265.8
Effective forage area (ha)		150.7

* for organic farms, pigs, poultry and other livestock are deemed to be grazing livestock

Table A5. Results of organic LFA cattle and sheep farms

LIVESTOCK CARRIED - per farm	1998/99	
	Average Number	LU
Dairy cows	14.4	0.0
Beef cows	53.0	32.8
Other cattle	210.8	36.6
Breeding sheep	624.6	64.9
Other sheep	300.9	25.8
Pigs	0.0	0.0
Poultry	0.0	0.0
Other livestock	0.0	0.0
TOTAL (L.U.)	160.1	
ASSETS - £ per farm		
	Opening Value	Closing Value
Land and Property	645,603	723,011
Buildings, improvements and fixtures	46,314	44,765
Machinery	47,352	43,810
Livestock	72,007	85,452
Produce and goods in store	18,113	9,814
Quotas	15,165	20,165
Credit balances	33,525	35,175
TOTAL	878,078	962,193
EXTERNAL LIABILITIES		
Long and medium term loans	9,336	93,813
Short term loans	5,545	4,063
Overdrafts	18,141	19,179
TOTAL	33,023	117,055
NET WORTH	845,055	845,137

Table A6. Results of organic mixed farms

(Includes one lowland beef and sheep farm)

		<i>Identical sample</i>			
		1997/98		1998/99	
		£/farm	£/ha	£/farm	£/ha
No of Farms		5		5	
ESU per farm		151		107	
Utilisable agricultural area (effective ha)		260		256	
Area organic or in conversion. (%)		80		100	
OUTPUTS, INPUTS & INCOMES					
OUTPUTS					
Dairy	output	38,296	147	38,609	151
	net quota	312	1	-1,259	-5
Other cattle	output	18,305	70	20,416	80
	subsidies	9,079	35	10,272	40
Sheep -	output	19,380	75	25,157	98
	subsidies	7,551	29	10,366	41
Other livestock		-1,480	-6	40	0
Main crops	output	75,199	289	62,002	243
	subsidies	18,240	70	16,761	66
By-products, forage and cultivations		1,427	5	2,908	11
	subsidies (set-aside)	4,219	16	3,280	13
Miscellaneous		14,487	56	6,825	27
	- organic grants	3,064	12	2,599	10
	- other agri-env.payments	581	2	705	3
	TOTAL OUTPUTS	208,661	802	198,681	777
INPUTS					
Feeds	purchased concentrates	3,724	14	7,108	28
	homegrown concentrates	3,158	12	6,663	26
	Purchased fodder, Tack and stock keep	941	4	252	1
	Veterinary and medicines	3,216	12	4,872	19
	Other livestock costs	8,143	31	9,215	36
	Seeds - purchased and homegrown	11,074	43	7,171	28
	Fertilisers	3,036	12	8,390	33
	Crop protection	0	0	80	0
	Other crop costs	969	4	2,181	9
Labour	farmer & spouse (manual only)	9,264	36	10,429	41
	paid incl. paid management	39,392	151	41,150	161
	unpaid	0	0	0	0
	casual	6,843	26	3,223	13
Machinery	contract	16,153	62	21,821	85
	repairs	14,729	57	13,864	54
	fuels	5,482	21	4,630	18
	depreciation	15,503	60	16,046	63
	General farming costs	18,838	72	17,308	68
	Land expenses	4,349	17	5,451	21
	Rent	16,399	63	15,113	59
	Rental value	14,140	54	13,663	53
	TOTAL INPUTS	195,353	751	208,630	816
	Add back managerial input of paid manager	3,326	13	4,902	19
	MANAGEMENT AND INVESTMENT INCOME	16,633	64	-5,047	-20
	Add back farmer and spouse labour	9,264	36	10,429	41
	Deduct managerial input of paid manager	3,326	13	4,902	19
	NET FARM INCOME (inc. BLSA)	22,571	87	480	2
	NET FARM INCOME (excl. BLSA)	22,571	87	3,869	15

Table A6. Results of organic mixed farms

INCOME MEASURES	<i>Identical sample</i>			
	1997/98		1998/99	
	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	22,571	87	3,869	15
plus net rental value/imputed rent	14,140	54	13,923	54
minus occupier's expenses	16	0	276	1
minus interest payments	4,238	16	5,855	23
minus buildings & works depreciation	2,320	9	2,878	11
OCCUPIER'S NET INCOME	30,137	116	8,783	34
plus other imputed charges	-409	-2	92	0
plus fixed asset depreciation	17,823	69	18,924	74
minus valuation changes	13,308	51	-330	-1
CASH INCOME	34,244	132	28,129	110
TENANT'S CAPITAL - £ per farm	£/farm	£/ha	£/farm	£/ha
Machinery	81,225	312	84,054	329
Livestock	85,333	328	88,579	346
Crops	32,074	123	20,051	78
Stores	6,457	25	24,601	96
TOTAL	205,088	789	217,285	850
PERFORMANCE INDICATORS				
Lambs reared per ewe (nos.)		1.5		1.3
Fat lamb sales per ewe (nos.)		1.1		1.1
Stocking rate (LU per eff.ha)		0.6		0.7
GLU/forage effective hectare*		1.0		1.0
Owner Equity (%)		94.2		89.9
ONI/Net worth (%)		2.1		0.6
Return on tenant's capital (%)		8.1		-2.3
Return on all capital (%)		2.2		0.6
Annual labour units		5.4		4.5
of which farmer & spouse		1.0		0.8
LAND UTILISATION - hectares per farm		ha		ha
Cereals and cash crops		80.9		83.1
Roots, fodder and other crops		0.3		4.1
Total grassland		150.0		160.8
Fallow, land let and set aside		17.5		2.9
Rough grazing - sole (Effective ha)		11.3		4.8
Utilisable agricultural area (Effective ha)		260.0		255.7
Rough grazing - common (Effective ha)		0.0		0.0
Woods, roads and buildings		20.5		26.6
TOTAL AREA (Actual ha)		285.7		294.9
Effective forage area (ha)		161.4		169.7

* for organic farms, pigs, poultry and other livestock are deemed to be grazing livestock

Table A6. Results of organic mixed farms

LIVESTOCK CARRIED - per farm	<i>Identical sample</i>			
	1997/98		1998/99	
	Average Number	LU	Average Number	LU
Dairy cows	24.3	24.3	36.9	22.5
Beef cows	33.2	24.9	42.8	25.1
Other cattle	78.5	38.3	233.7	40.1
Breeding sheep	492.2	63.4	381.5	67.6
Other sheep	135.4	5.9	337.4	14.1
Pigs	0.0	0.0	0.6	0.0
Poultry	0.0	0.0	0.0	0.0
Other livestock	0.0	0.0	0.0	0.0
TOTAL (L.U.)		156.8		169.4

ASSETS - £ per farm	Opening	Closing	Opening	Closing
	Value	Value	Value	Value
Land and Property	1,111,024	1,113,454	1,113,852	1,200,229
Buildings, improvements and fixtures	22,089	23,585	24,913	27,180
Machinery	79,681	82,768	82,769	85,339
Livestock	83,108	87,557	83,879	93,278
Produce and goods in store	37,602	39,460	47,698	37,607
Quotas	65,520	65,510	65,510	70,284
Credit balances	64,647	101,346	98,815	106,900
TOTAL	1,463,670	1,513,679	1,517,435	1,620,818

EXTERNAL LIABILITIES				
Long and medium term loans	6,672	3,043	3,740	91,816
Short term loans	17,330	35,635	34,092	2,694
Overdrafts	29,830	49,189	50,018	67,832
TOTAL	53,832	87,868	87,850	162,342

NET WORTH	1,409,838	1,425,811	1,429,586	1,456,763
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Appendix 2 The Farm Classification System

For each farm in the survey, each hectare of crop area and each head of livestock are assessed in terms of Standard Gross Margins (SGMs). These SGMs are expressed in European Currency Units, with 1200 such units equivalent to 1 European Size Unit (ESU).

Farm size is measured for a particular farm by the number of ESUs registered in total, and this is thus a measure of the size of the farm business. It is a measure of the economic size of holdings in terms of the value they add to variable inputs and thus differs from physical measures, such as area, which take no account of the intensity of production. The survey is designed to cover farms of at least 8 ESU in size.

Farm type is determined for a particular farm by the proportion of the SGM total accounted for by each enterprise. Precise details of the typology are complex, but may be summarised as follows:

<i>Farm type</i>	<i>Characteristics</i>
Cropping	In this report, two categories are combined:
<i>Cereals</i>	Farms on which cereals and other crops generally found in cereal rotations account for more than two thirds of their total SGM.
<i>General cropping</i>	Farms on which arable crops (including field scale vegetables) account for more than two thirds of their total SGM excluding farms classified as <i>cereals</i> .
Horticulture	Farms where horticultural crops or permanent crops including fruit, either alone or in combination, account for over one-third of total SGM and form the largest enterprise group.
Dairy	Farms where the dairy enterprise, including followers, accounts for over one third, and commonly over two-thirds of total SGM and is the largest enterprise group.
Cattle and Sheep	In this report, two categories are presented separately:
<i>Lowland livestock</i>	Farms outside the Less Favoured Areas on which grazing livestock, other than dairy cattle, account for over one-third, commonly over two-thirds, of total SGM, and form the largest enterprise group, or farms on which grazing livestock (except dairy cattle) and field crops each account for over one-third but less than two-thirds of total SGM.
<i>LFA livestock</i>	Farms in the Less Favoured Areas on which sheep, cattle or cattle and sheep together, other than dairy cattle, account for over one-third of total SGM, commonly over two-thirds and are the largest enterprise group.
Mixed	Farms with a range of enterprise where none clearly predominates.

Appendix 3 Definition of Terms

Breeding Livestock Appreciation (BLSA)

BLSA is that element of Net Farm Income resulting from changes in breeding livestock prices between the opening and closing valuations. It is calculated by multiplying for each category of breeding livestock the change in the opening and closing valuations by the average number of livestock in that category during the year.

Cash Income

Cash income is based on actual receipts and actual expenditure. It represents the difference between receipts and expenditure on current account, before depreciation charges and investment spending.

Effective Hectares (Eff.Ha)

The effective hectareage constitutes the total farm area minus the area occupied by roads, woodland, wasteland and buildings, and with rough grazings expressed in terms of their pasture equivalent. E.g. on a particular farm, 20 hectares of rough grazing in terms of its capacity to carry stock may be worth 4 hectares of permanent pasture - it is therefore regarded as being 4 effective hectares. A notional area is also estimated for the use made of any common grazings.

Enterprise Output

Enterprise output is all returns from an enterprise, plus the market value of any of its products transferred out to another enterprise, plus the market value of any production from the enterprise given to workers or consumed on the farm. In the case of livestock enterprises, the value of purchased livestock and the market value of livestock transferred in from another enterprise are deducted. All totals are adjusted for changes in valuation. Milk output includes quota transactions and any super-levies paid, have been deducted.

General Farming Costs

General farming costs include electricity, water and telephone charges, licences, insurances, subscriptions, professional charges, etc.

Livestock Units (LU) and Grazing Livestock Units (GLU)

Livestock numbers are converted to livestock units, which are based on estimated energy requirements, in order to calculate the total stocking of grazing livestock on the farm. The following conversion factors are used:

Dairy cow	1.00	Hill ewe	0.06
Beef/hill cow	0.75	Upland ewe	0.08
Beef/dairy bull	0.65	Lowland ewe	0.11
Beef/dairy heifer	0.80	Ram	0.08
Other cattle - 2 years old and over	0.80	Ewe lamb	0.08
- 1 to 2 years old	0.65	Other sheep 1 year old and over	0.08
- under 1 year old	0.34	Store lamb under 1 yr.	0.04

Management and Investment Income (MII)

MII is total farm enterprise output less total inputs (including the value of the labour input of the farmer and spouse). It represents the reward for the farmer's (and spouse's) management and interest on the tenant's capital employed on the farm.

Margin over concentrates

Margin over concentrates is the difference between milk sales and the value of purchased and homegrown concentrates used for the dairy herd.

Miscellaneous Output

Miscellaneous output includes contract work, farm cottage rents, benefit value of farmhouses, and profit on resale of purchased agricultural produce.

Net Farm Income (NFI)

NFI is total farm enterprise output less total inputs (excluding the value of the labour of the farmer and spouse). It is calculated as if all farms are tenanted, and represents the return to the farmer and spouse for their labour and management, and on the tenant-type capital of the business.

Net Worth

Net worth is the difference between total assets and total liabilities and represents the value of assets available to the business, all other claims against these assets having been met.

Occupier's Net Income

Occupier's net income is based on actual tenure and indebtedness. It represents the return to the farmer and spouse for their labour, management and investment in the farm business.

Other Crop Costs

Other crop costs include crop protection chemicals and other costs incurred specifically for crop enterprises and forage.

Other Livestock Costs

Other livestock costs include purchased bedding materials, and other costs incurred specifically for livestock enterprises.

Owner Equity

Owner equity is net worth expressed as a percentage of total assets.

Rental Value

For owner-occupied farms, a rental value is imputed to make it possible to compare results with farms on which rents have to be paid.

Return on All Capital

Return on tenant's capital is management and investment income plus rental value expressed as a percentage of total tenant's capital.

Return on Tenant's Capital

Return on tenant's capital is management and investment income expressed as a percentage of total tenant's capital.

Tenant's Capital

Tenant's capital is the value of livestock, machinery, crops (including cultivations) and stores. In the tables, it is expressed as the average of the opening and closing valuations for these items.