

**ORGANIC FARM INCOMES
IN ENGLAND AND WALES
2001/02**

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July 2004

**Organic Research Group
Institute of Rural Sciences**

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Summary

Financial results from research work carried out for the Department of Environment, Food and Rural Affairs (DEFRA) by the Organic Farming Research Unit at the IRS, UWA on the economic performance of organic farms in 2001/02 are presented in this report. A fundamental aim of this work is to assess the financial performance of organic farms differentiated by farm type, in order to inform DEFRA policy-making with respect to economics of 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.

This research area builds on previous economics work on organic farming carried out by IRS, UWA (Project OF0190, covering 1995/96¹ to 1998/99²). Here, data is shown for the 2001/02 financial year, which is the first of a series of three reports covering the financial performance of organic farm types including cropping, horticulture, lowland and LFA dairy, lowland and LFA cattle and sheep and mixed farming systems for 2001/02 up to 2003/04. In comparison with the earlier reports, there has been a significant improvement in the numbers of farms for which data have been obtained.

Summarised and detailed financial input, output, income, liabilities and assets and some physical performance measures are presented based on current Farm Business Survey data collection and collation guidelines. The samples of organic farms per robust farm type are sufficiently large to give a reasonable level of confidence in the data; however, it should be noted that the organic farm samples are not statistically representative of their type, although the results can be seen as a reasonable indication of farm income levels for organic farms.

An additional element of this work is the inclusion of comparable conventional farm data for the farm types shown. Each organic farm within this study was matched with the averaged results for a comparable cluster of conventional farms based on the resource endowment of individual organic farms. Broadly speaking, the parameters used to select comparable farm clusters included farm type, FBS region, LFA status, utilisable agricultural area, milk quota holding (where applicable) and farm business size. For each farm type, the results for each cluster were averaged and compared with the average for the individual organic farms.

Overall, organic farms showed a similar or higher level of net farm income for all farm types compared to the conventional farms. The greatest differences were seen in the cropping, horticulture, LFA dairy and mixed farm types. Both organic and conventional lowland dairy types performed similarly. For management and investment income, only the organic lowland and LFA cattle and sheep farms showed a negative value. Conversely, the comparable conventional farm types showed a negative value with the exception of the lowland dairy farms.

Gross margin data is presented for organic dairy herds including the top and bottom 5 performing herds. Cattle and sheep gross margins are shown for lowland and LFA farm types in addition to breeding pig gross margins. Crops shown include winter and spring wheat and barley, spring oats, beans and potatoes and a further five horticultural crops.

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.

² Fowler, S.M., Wynne-Jones, I. and Lampkin, N.H. (2001) Organic Farm Incomes in England and Wales 1998/99. Welsh Institute of Rural Studies, Aberystwyth. Report for MAFF contract ref. OF0190 URL www.organic.aber.ac.uk/library/Organic_Farm_Incomes.pdf.

1. Introduction

This is the first of a series of three annual reports on the financial performance of organic farms covering the years 2001/02 to 2003/04 carried out for the Department for Environment, Food and Rural Affairs (DEFRA).

The aim of this research report is to show the financial performance of organic farms for 2001/02, differentiated by farm type, in order to:

- inform DEFRA policy-making with respect to organic farming, 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.

This project builds on existing economics research work carried out by the Organic Farming Research Unit, IRS for MAFF (project OF0125, covering 1995/96 to 1997/98, 1998/99^{1,2}) with specific objectives, which include:

- the collection of financial data from organic cropping, horticulture, dairy, upland, lowland and mixed farm types (12 farms per robust type) from 2001/02 to 2003/04;
- the collation of organic farm data from the UK Data Archive for existing FBS studies in the study years;
- the selection of appropriate clusters of similar conventional farms of types selected to complement the farms above;
- the production of an annual report incorporating comparisons with data from the conventional farms on a wholefarm basis as well as gross margin data.

This report is divided into various sections including methodology, which shows the methods used for data sourcing and sampling technique to move towards a representative organic farm sample, followed by an explanation of the clustering procedure, which shows how comparable conventional farms (CCF) are selected as a means of comparing the organic farm types with conventional farms. Hereafter, the financial results are presented with results explanations and brief highlights followed by summary data for each farm type. Detailed gross margins are included for livestock and cropping enterprises. The detailed financial results can be found in appendix 1. Overall, the report comprises mostly data tables with limited interpretation at this stage as this work represents the first set of results over a three year period and consequently can be defined as work in progress.

2. Methods

2.1 Organic farm data sources and collection methods

Financial results have been derived from organic farm businesses in England and Wales with account years ending between July and the following April; the majority of farms falling between December and April. Where the farm financial year falls outside of the December to April bracket, an artificial year-end is used to avoid year-ends occurring during the growing season.

The data has been derived from four different sources and all data gathered were collected and processed according to standardised Farm Business Survey guidelines set down by the Department for Environment, Food and Rural Affairs, Economics (Farm Business) Division. In a few cases where it was not possible to standardise whole farm figures, only gross margin information for specific enterprises has been included (see Table 1):

1. Organic Farming Research Unit / Farm Business Survey Unit, (IRS, Aberystwyth)

For the primary data collection, the Farm Business Survey unit at Aberystwyth is responsible for collecting the main organic farm income data for cropping, dairy, upland, lowland and mixed farm types with the aim of achieving 12 farms per robust type for wholefarm data and gross margin data. Farm recruitment for the survey was carried out by the IRS Organic Farming Research and Farm Business Survey Units with the aim of identifying a sample of farms to reflect robust types throughout England and Wales. This was carried out via random selection of national producer lists from organic certification bodies to identify holdings with more than 8 European Size Units (ESU) (for definition, see Appendix 2) and having at least 70% organic status in 2001/02.

2. DEFRA: UK Data Archive

Each year, Farm Business Survey Centres around the UK submit FBS data to DEFRA. Within the remit of this project, it has been possible to derive further organic farms that form part of the farm sample from other FBS centres in the UK with the introduction of organic indicators in 1999. This has proved a valuable method of increasing the number of organic farms for the purposes of this research work. In 2001, farm income data from 2845 farms was submitted to DEFRA, of which 109 farms had organic or in-conversion enterprises on farm. From this total, only 51 farms were useable and have been included in this report.

3. HDRA (Henry Doubleday Research Association)

HDRA were responsible for supplying both wholefarm and gross margin data for horticultural holdings. Although eleven farms were recruited, it was not possible to use all of these farms in the horticultural section due to large dissimilarities within the group in terms of the proportion of horticulture output/area and intensity of the enterprises. However, gross margin data is included in the gross margin sections where applicable.

4. Other Data Sources (IRS, IGER, ADAS)

Data from six commercial dairy farms has been supplied by a DEFRA funded project (project code OF0146) coordinated by the Organic Farming Research Unit, IRS; IGER and ADAS. This data was originally collected to study the conversion of IGER's Ty Gwyn dairy unit to organic milk production using a linked farms approach. Again, the data were collected by IRS using Farm Business Survey guidelines.

Table 1 Distribution of organic farms by type and source of data, 2001/02

<i>Data source</i>	<i>IRS</i>	<i>UK Data Archive</i>	<i>HDRA</i>	<i>Other</i>	<i>Total</i>
<i>Farm Type</i>	<i>Wholefarm & GM data</i>	<i>Wholefarm data only</i>	<i>Wholefarm & GM data</i>	<i>Wholefarm & GM data)</i>	
Cropping	9 + 1 GM	3			12+ 1 GM
Horticulture	2*		3 + 8 GM		5 + 8 GM
Pigs and poultry	5 GM + 4 GM				5GM+4GM
Dairy (lowland)	11	21		2	34
Dairy (LFA)	2	2		2	6
Cattle and sheep LFA	14	11			25
Lowland	11	7			18
Mixed	12	6		2	20
Total	59 +10 GM	51	3 + 8 GM	6	120 + 18 GM

* Cropping farms with a horticulture enterprise, thus used for both cropping and horticulture farm types

GM – Gross margin data only as no comparable farm data available

2.2 Farm samples and farm classification

The total farm sample consists of 132 recruited organic farms; from which, it was possible to derive whole-farm data from 120 farms. All farms were classified by constituent EC type (1985 EC Typology described in Commission Decision 85/377/EEC) and for the purposes of this report are presented in groups by robust type according to the UK farm classification system (revised 1994)³. (See Table 2 and Appendix 2 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); a typology system originally devised for conventional agricultural systems.

To ensure anonymity of results for farmers participating in these surveys, no data is presented for groups of less than five farms. Robust types 1 (Cereals) and 2 (General Cropping), are merged to present enough farms in each sample to maintain confidentiality.

At the time of recruiting for this work, it was not possible to recruit the specified number of 12 farms for cropping and lowland robust types due to an apparent lack of these robust types. This may have been due to the introduction of more enterprises for organic farms such as introducing a livestock enterprise on cropping farms or increasing the share of cropping on a lowland farm, leading to a change in type status under the above farm classification methodology. Another main constraint for recruiting cropping farms was that many cropping farms began converting in 1999 and 2000 and therefore not having full organic status by the 2001 financial year end.

Recent DEFRA statistics for December 2003 indicate that this is no longer the case with approximately 150 organic farms per robust type for both cropping and lowland farms matched to census data in England alone (DEFRA Statistics Division, personal communication).

³ See <http://statistics.defra.gov.uk/esg/publications/fab/2003/excel.asp> for further information on the farm accounting system employed in England and Wales by DEFRA Economics Division.

Table 2 Distribution of surveyed farms by type and size (European Size Units)

<i>Farm type</i>	<i>ESUs</i>	8 - <15	15 - <28	28 - <40	40 - <60	60 - <100	100 - <200	200 +	Total
Cropping		2	3	1	3	3		1	13
Horticulture				3		2			5
Dairy (lowland)			1	3	7	11	8	4	34
Dairy (LFA)				1	2	2	1		6
Cattle & sheep									
- LFA		7	8	4	5	1			25
- Lowland		4	7	5	2				18
Mixed	1			7	1	5	1	4	19
Total	1	13	19	21	20	22	10	9	120

The combination of organic farm recruitment by IRS and HDRA plus the use of data from existing FBS data represents a four fold increase in the sample size in each group compared with the earlier studies, although recruitment difficulties still raise issues about whether the samples can be considered to be representative or not. Therefore, it should be noted that it has been possible to succeed in the objective of increasing the size of the organic farm sample; but, the recruitment process was not able to identify a statistically representative sample of organic farms, despite aiming to do so. For this to occur, it would be necessary to include organic farming within the sampling stratification frameworks for the Farm Business Survey itself and better harmonisation between administrative data and Farm Structure Survey/June Census data (Offermann in Recke *et al.*, 2004)⁴.

However, a comparison with unpublished census data supplied by DEFRA Statistics Division (personal communication) indicates that the distribution of all farms by size is similar in the sample compared with the organic farms in the DEFRA statistics, although very small units are excluded from the survey (as stated above) and the 100-200 ESU group is somewhat under-represented. A comparison of the distribution of farm type by region using the unpublished census data indicates that there may be a bias towards Welsh and Western region holdings in the sample, particularly with respect to livestock and mixed holdings, but that within regions, individual farm type proportions are well represented by the sample. This Wales and West bias is also indicated by a comparison with all organic farms (Table 3) although it is worth noting that in 2001, the sample of 132 farms accounted for 4.5% of all 2999 organic holdings in England and Wales.

Table 3 Regional distribution of organic farms within the survey, 2001/02

<i>Data source</i>	<i>UK</i>				<i>Survey Total</i>	<i>% of survey holdings</i>	<i>No. of organic holdings⁵</i>	<i>% of holdings (all E&W)</i>
	<i>IRS</i>	<i>Data Archive</i>	<i>HDRA</i>	<i>Other</i>				
Northern	5	9	-	-	14	11	272	9
Eastern	8	10	7	-	25	19	1042	35
South West	21	20	4	3	48	36	1096	37
Wales	28	14	-	3	45	34	589	20
Total	62	53	11	6	132	-	2999	-

⁴ Recke et al. (2004) Development of a European Information System for Organic Markets. Seminar Proceedings. www.eisfom.org

⁵ Organic Food and Farming Report (2002) Soil Association. Bristol.

2.3 Farm comparisons

A key aspect of this research work was to derive a cluster of comparable conventional farms for each organic farm to provide comparison data. By generating comparison farm data, it is possible to determine and understand further the economic performance of organic farms, their relative competitiveness and the impact of policy on them in relation to conventional farms.

2.3.1 Background

Issues relating to comparing results from organic and conventional farms have been discussed by Lampkin and Padel (1994)⁶ and Offermann and Nieberg (2000).⁷

The conventional farms selected need to be 'comparable'. The objective is to isolate the effect of the farming system on profits, so the choice of characteristics for comparison must be restricted to 'non-system determined' factors, i.e. location (climate, topography, soil, and market distance), size and tenure. The use of clusters of similar conventional farms to compare with each organic farm has the advantage over paired farm comparisons in that specific circumstances of individual conventional farms do not distort the comparison. The average for a group of organic farms can then be compared with the average for the group of matched clusters with greater confidence when the farm size, type and location characteristics of the organic and conventional groups are similar.

The idea of using clusters of conventional farms as comparisons has been used in previous studies using a hierarchical cluster analysis technique on the basis of Euclidean squared difference; however, the method of clustering has been changed in this study.

2.3.2 Conventional farm selection

For each organic farm recorded, the aim was to generate a cluster of at least three comparable conventional farms (CCF) from the Farm Business Survey database (DEFRA, 2001)⁸. The emphasis for selection of comparable conventional farms for this study was to focus on resource endowment identifiers/variables. The resource endowment of the holding is normally independent of the organic or conventional management, and is a reflection of the resources with which the farm manager can run the farm business.

The main identifiers required to be identical for determining resource endowment include:

- Region (FBS province), assists with selecting farms with similar production conditions (i.e. location, market distance, institutional and policy frameworks)
- Less Favoured Area and Non- Less Favoured Area status (Table 4)
- Altitude (Table 5)
- Main farm type, which is more descriptive typing than robust type (Table 6).

⁶ Lampkin, NH and S Padel (1994) *Economics of Organic Farming – an international perspective*. CAB International, Wallingford.

⁷ Offermann, F. and Nieberg, H. (2000) Profitability of Organic Farming in Europe. Paper presented at the Agricultural Economics Society Annual Conference, Manchester.

⁸ Department for Environment, Food and Rural Affairs (Farm Business Division). Farm Business Survey Data, 2001/02 [Computer File]. Colchester, Essex: The Data Archive [Distributor] 9th October 2003.

To prevent limiting the number of CCF's unduly, the above variables were reassigned different codes to allow some flexibility in deriving the comparison farm data.

Table 4 Recoding of LFA codes to simplify the clustering procedure

Less favoured Area Codes	LFA types
All land outside LFA	1
All land inside SDA	2
All land inside DA	3
50%+ in LFA of which 50%+ in SDA	4
50%+ in LFA of which 50%+ in DA	5
<50%+ in LFA of which 50%+ in SDA	6
<50%+ in LFA of which 50%+ in DA	7

Table 5 Altitude codes for farms in the FBS/FADN system

Altitude Description	Code
Most of holding below 300m	1
Most of holding at 300m to 600m	2
Most of holding at 600m or above	3

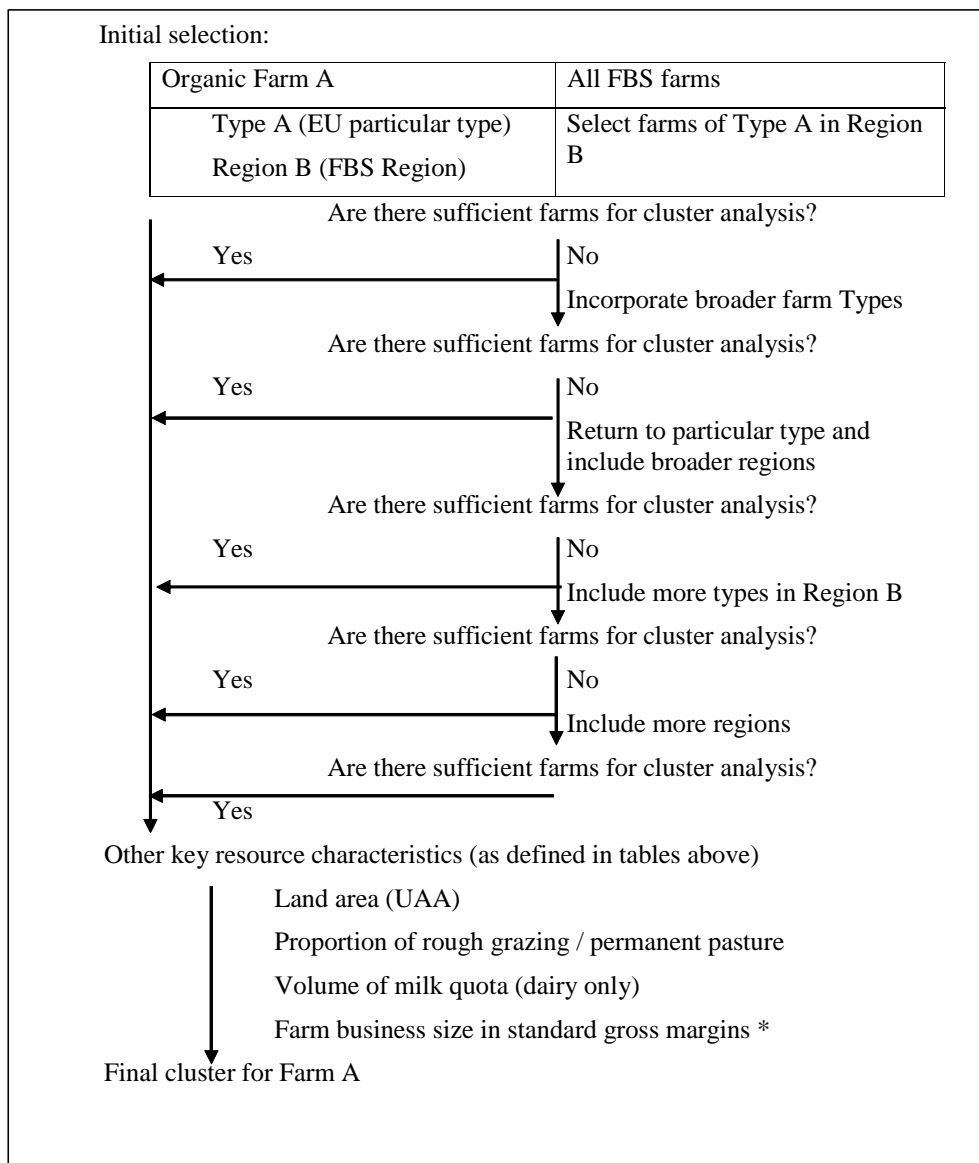
Table 6 Main type and robust types used in the FBS/FADN system

Farming Description	Main type	Robust type
Cereals	1	1
General cropping	2	
Specialist fruit	3	
Specialist glass	4	2
Other horticulture	5	
Specialist pigs	6	
Specialist poultry	7	3
Mixed pigs & poultry	8	
Dairy (LFA)	9	4
Dairy (lowland)	10	
Specialist sheep (SDA)	11	
Specialist beef (SDA)	12	5
Mixed cattle & sheep (SDA)	13	
Cattle & sheep (DA)	14	
Cattle & sheep (lowland)	15	6
Cropping and dairy	16	
Cropping, cattle & sheep	17	
Cropping, pigs & poultry	18	7
Cropping & mixed livestock	19	
Mixed livestock	20	

To identify comparable farm data with similar resource endowment, pre-defined ranges were used for land (utilisable agricultural area), milk quota ownership (dairy farms only), proportion of permanent pasture and rough grazing land and the farm business size in standard gross margins (ESU) per farm. The range was defined by a percentage deviation from the value of the respective organic farm (e.g. +/- 20%) and/or an absolute value to prevent organic farms with small values being lost from the sample. Horticulture farms included the proportion of rented land, irrigated land, glasshouse and protected cropping area and the horticulture enterprise output as a proportion of total farm output. Overall, the combination of variables can be taken as a reasonable guide to identifying comparable resource endowment.

For all farm types, a standard procedure was undertaken to determine the comparable data selection per organic farm. However, it was not possible to achieve a reasonable number of CCF's in 30% of cases. Therefore, a hierarchical clustering approach was used, by adding farms of the same type from adjacent regions and on occasion increasing the pre-defined ranges per farm type (See Box 1 and Table 7).

Box 1 Conventional farm selection procedure



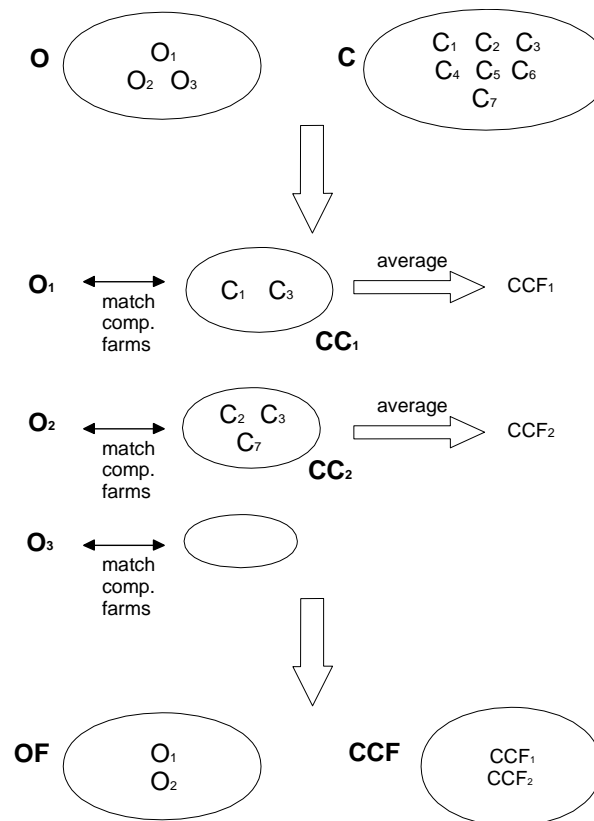
Farm business size, as measured by standard gross margins, is a measure of the potential economic activity of the particular mix and size of enterprises on the farm.

Table 7 Summary table to show the procedure used per farm type and the CCF results achieved

	Cropping	Horticulture	Dairy (lowland)	Dairy (LFA)	Cattle and sheep Lowland	LFA	Mixed
Total organic farms	12	5	34	6	18	25	20
Baseline clustering criteria							
Utilisable agricultural area [UAA] (+/- %)	20	40	30	30	20	20	30
Quota owned (+/- %)	n/a	n/a	30	30	n/a	n/a	30
Permanent Pasture [PP] (+/- %)	25	30	n/a	n/a	30	30	30
Rough Grazing [RG] (+/- %)	25	30	n/a	n/a	30	30	30
Economic Size Units [ESU] (+/- %)	30	30	30	30	30	30	30
LFA status/altitude	identical	Identical	identical	identical	identical	identical	identical
Main type	identical	Identical	identical	identical	identical	identical	identical
Region	identical	n/a	identical	identical	identical	identical	identical
Horticulture area/output (%)	n/a	35 to 50	n/a	n/a	n/a	n/a	n/a
Irrigation/glass area (+/- %)	n/a	35	n/a	n/a	n/a	n/a	n/a
No. of farms for which baseline cluster obtained (min 3 farms)	8	4	24	4	16	19	9
(as a percent)	62%	80%	70%	66%	89%	72%	45%
Modifications required to achieve clusters for remaining farms							
Regional (broader selection)	3	-	8	2	-	1	9
Regional and/or RG/PP and/or UAA (broader selection)	1	1	-	-	1	3	2
LFA/altitude (non-identical criteria)	-	-	-	-	-	2	-
Main type (incorporate broader farm type definition)	-	-	-	-	1	-	-
Resulting final cluster statistics							
Average number of farms in cluster per organic farm	16.2	6.6	7.4	5.1	9.6	12.8	6
% of organic farms clustered	100	100	100	100	100	100	100
No. of organic farms with more than 5 farms (CCF) per cluster	8	4	26	3	15	20	10
% of organic farms with more than 5 farms (CCF) per cluster	62	80	65	50	83	80	50
Range of CCF per organic farm per farm type: Minimum	3	4	3	4	3	3	3
Maximum	59	8	21	6	22	30	23

Once the comparable conventional farm data was identified from the main Farm Business Survey database (sample C) for the organic farms (sample O), the comparable conventional farm data was averaged. This effectively creates a single ('artificial') comparable conventional farm CCF₁ for each organic farm⁹. Note that farms from sample C could be used more than once. To arrive at set OF, all organic farms with no comparable data were removed from sample O, leaving set OF an average of sample O and CCF an average of sample C for which the robust type data was based for further comparative analysis in this report.

Box 2. Diagram to show the procedure to determine comparable farm data per farm type



2.3.3 Interpretation of results

It should be noted that the farms have been classified by Standard Gross Margins (SGMs), a typology system originally devised for conventional agricultural systems and therefore not entirely appropriate for these organic farms (see Appendix 2). Further, because of the systematic differences in structure on organic farms, clustering conventional farms is still only an approximate guide to the possible performance of organic farms if they were managed conventionally or vice versa.

The data source for the cluster farm comparisons is sufficiently large for a degree of confidence in the average; however, there is still a possibility for outliers (especially larger farms) to have some influence on the average.

⁹ Offermann, F. (2004) Selection of comparable conventional farms: Some considerations for a general guideline. Unpublished project guidelines, Further Development of European Organic Farming Policy Project (www.irs.aber.ac.uk/euceeofp).

3. Presentation of results

3.1 Whole farm data

Results for each type of organic farm have been averaged. Within summary sections on each farm type, tables show breakdowns of average outputs, inputs and incomes for whole farms and in £/ha; for cropping, horticulture, lowland and LFA dairy, mixed, LFA and lowland cattle and sheep farms.

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).

Within Appendix 1, Tables A1 to A7 give details of outputs, inputs, incomes, some performance measures, and asset and liability information for seven 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.

The effect of breeding livestock 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.

3.2 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 2001 when a number of factors were affecting agriculture in general including the Foot and Mouth crisis, which began in March 2001, downward pressures on conventional farm-gate prices and support payments due to the increased value of the pound and Agenda 2000 reforms. In addition, the increasing supply of organic products from the domestic market began to exert downward pressure on organic prices, although this became more apparent in 2002/03.

Table 8 Farms data summary (£/farm and £/ha), average NFI and MII, 2001/02

Farm type	Number of farms	Management and Investment Income		Net Farm Income excluding BLSA	
		£ / farm	£ / ha	£ / farm	£ / ha
Cropping					
Organic	12	6556	57	19882	174
Comparable conventional	208	-8423	-73	3887	34
Horticulture					
Organic	5	18235	397	28933	629
Comparable conventional	33	-2890	-74	12536	320
Dairy lowland					
Organic	34	10377	95	25279	231
Comparable conventional	298	9675	99	25062	255
Dairy LFA					
Organic	6	12232	143	27414	320
Comparable conventional	31	-7492	-99	7957	105
Lowland cattle and sheep					
Organic	18	-9794	-126	5527	71
Comparable conventional	172	-15933	-206	-3075	-40
LFA cattle and sheep					
Organic	25	-6258	-51	6443	52
Comparable conventional	320	-11320	-100	1711	15
Mixed					
Organic	20	2977	17	15691	92
Comparable conventional	120	-13391	-82	-661	-4

For the 2001/02 data, all organic farm types showed a positive net farm income (Table 8). The lowest per hectare net farm incomes were for LFA and lowland cattle and sheep systems and mixed farm types. LFA organic dairy farms performed better than the organic lowland dairy farms. On comparing with the conventional farm samples, the organic farms performed better for all farm types with greatest differences between the cropping, horticulture, LFA dairy and mixed farm types. The conventional lowland cattle and sheep and mixed farms showed negative net farm incomes. Organic LFA dairy farms performed significantly better than the conventional LFA dairy farm sample.

Management and investment income is derived from net farm income by subtracting farmer/spouse labour and adding back paid management and livestock appreciation. The data indicates that with the inclusion of these factors, only the organic lowland and LFA cattle and sheep farms show a negative value. For the comparable conventional data, all farm types showed a negative net farm income with the exception of the lowland dairy farms, which showed a minor surplus.

Individual farm type data are summarised below and detailed results shown in appendix 1.

4.1 Cropping farms

In total, 12 organic farms have been used for the cropping analysis where one farm was located in the North, two in Wales, four in the West and six in Central and Eastern England.

The total UAA and standard gross margins are similar for both samples. It should be noted that one of the farms in the organic sample has a dairy enterprise. Otherwise key differences between the two samples include more livestock and consequently more grazing land (approx 90%) and 20% less arable cropping in the organic sample. Net farm income (NFI) and management and investment income (MII) are significantly higher in the organic sample than for the conventional farms. Cash income is lower in the organic sample due to greater valuation changes, which is partly from greater investment in livestock enterprises and more produce, goods carried over in store. The organic sample showed a lower net worth and lower percentage of owner equity compared to the CCF. In total, eight of the farms from the organic sample had a higher NFI than their conventional cluster data.

Table 9 Summary data for cropping farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 12		Conv. = 208	
Average farm size (UAA)	114.2		115.1	
Business Size (ESU)	70		69	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	41675	365	13658	119
Livestock subsidies	1137	10	1810	16
Cropping outputs	58301	511	61327	533
AAPS / Set-aside	14886	130	19181	167
Miscellaneous	6624	58	11401	99
Agri-env. payments	11276	99	518	5
TOTAL OUTPUTS	133899	1173	107895	937
Livestock inputs	23393	205	7320	64
Crop inputs	12561	110	24205	210
Labour	17572	154	16347	142
Machinery	24681	216	26027	226
General	9438	83	9636	84
Land & rent	26372	231	20476	178
TOTAL INPUTS	114017	999	104012	904
NFI	19882	174	3887	34
Less farmer/spouse labour	13580	119	12361	107
Add paid management	0	0	135	1
Add BLSA	254	2	-83	-1
MII	6556	57	-8423	-73
ONI	19678	172	7608	66
Cash Income	5800	51	24284	211

Table 10 Summary cropping data for the cropping farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	10733	25657	22.5	35.5	4.2	6.6	130	74
Barley	7304	8209	19.3	13.9	2.4	5.4	91	67
Other cereals	2319	1865	6.5	3.2	2.5	5.4	88	0
Total cereals	20355	35730	48.3	52.6	N/A	N/A	N/A	N/A
Oil seed rape	0	4236	0.0	7.3	0.0	2.2	0	141
Linseed	0	182	0.0	0.5	0.0	1.2	0	0
Peas/Beans	3936	3190	7.1	6.2	4.8	3.1	n/d	n/d
Potatoes	22731	11117	5.0	3.2	18.0	44.2	277	83
Sugarbeet	869	8292	0.4	5.6	54.1	47.6	43	30
Horticulture	11089	6284	2.5	2.2	n/d	n/d	n/d	n/d
Other	62	1565	0.1	1.6	n/a	n/a	n/d	n/d
Total (all)	59042	70597	63.4	79.3	N/A	N/A	N/A	N/A

* Excluding Transitional agri-money compensation and previous crop disposal

yield and price data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	18	36	35	45
Barley	12	12	30	18
Other cereals	4	3	10	4
Total cereals	34	51	76	66
Oil seed rape	0	6	0	9
Linseed	0	0	0	1
Peas/Beans	7	5	11	8
Potatoes	39	16	8	4
Sugarbeet	1	12	1	7
Horticulture	19	9	4	3
Other	0	2	0	2
Total (all)	100	100	100	100

4.2 Horticultural holdings

In total, five organic farms have been used for the horticultural analysis. Geographically, one farm was located in the North, one in Wales, one in the West and two from Central and Eastern England.

The organic and comparable conventional farms were similar in terms of average farm size and standard gross margins. Overall, net farm income (NFI) was higher in the organic sample although outputs were lower than for the conventional farms. Labour and crop inputs were less in the organic sample, which may be due to greater intensity practiced on the comparable conventional farms. In total, four of the organic farms had a higher NFI than their conventional cluster data.

Table 11 Summary data for horticulture farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 5		Conv. = 33	
Average farm size (UAA)	46.0		39.1	
Business Size (ESU)	49		50	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	1657	36	210	5
Livestock subsidies	905	20	16	0
Cropping outputs	89378	1945	104469	2669
AAPS / Set-aside	1556	34	4127	105
Miscellaneous	4089	89	10443	267
Agri-env. payments	651	14	188	5
TOTAL OUTPUTS	98235	2137	119453	3052
Livestock inputs	2086	45	106	3
Crop inputs	19741	430	36021	920
Labour	13011	283	30002	767
Machinery	16918	368	18087	462
General	5920	129	10621	271
Land & rent	11626	253	12080	309
TOTAL INPUTS	69302	1508	106917	2732
NFI	28933	629	12536	320
Less farmer/spouse labour	10698	233	15426	394
Add paid management	0	0	0	0
Add BLSA	0	0	0	0
MII	18235	397	-2890	-74
ONI	34309	746	10075	257
Cash Income	45333	986	22020	563

Table 12 Summary cropping data for horticulture farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	3340	6866	6.4	9.4	2.7	7.1	118	72
Barley	0	2055	0.0	4.1	0.0	3.5	0	61
Other cereals	0	71	0.0	0.1	0.0	6.0	0	0
Total cereals	3340	8992	6.4	13.7	N/A	N/A	N/A	N/A
Oil seed rape	0	98	0.0	0.1	0.0	3.6	0	156
Linseed	0	57	0.0	0.2	0.0	0.0	0	0
Peas/Beans	0	416	0.0	0.9	0.0	2.6	n/d	n/d
Potatoes	40127	4650	4.7	1.3	25.1	40.0	326	75
Sugarbeet	2085	1996	0.9	1.2	54.1	57.7	43	29
Horticulture	42579	85738	8.4	8.7	n/d	n/d	n/d	n/d
Other	248	0	0.0	0.0	n/a	n/a	n/d	n/d
Total (all)	88380	101947	20.4	26.1	N/A	N/A	N/A	N/A

* Excluding Transitional agri-money compensation and previous crop disposal

yield and price data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	4	7	31	36
Barley	0	2	0	16
Other cereals	0	0	0	0
Total cereals	4	9	31	52
Oil seed rape	0	0	0	0
Linseed	0	0	0	1
Peas/Beans	0	0	0	3
Potatoes	45	5	23	5
Sugarbeet	2	2	4	5
Horticulture	48	84	41	33
Other	0	0	0.1	0.0
Total (all)	100	100	100	100

4.3 Lowland dairy farms

In total, 34 organic farms have been used for the lowland dairy analysis. Geographically, six farms were in the North, 14 in Wales, 10 in the West and four from Central and Eastern England.

Both the average farm size and dairy cow numbers in the organic sample were approximately 10% higher compared to the conventional farms. Overall, the net farm income (NFI) values for both samples were similar. The implied milk price was 23.7p/litre compared to 19.9p/litre for the conventional farms and milk yield was 10% lower in the organic sample at 5651 litres. Crop output was similar for both samples but the level of inputs varied significantly. In total, 20 of the organic farms had a greater NFI than their conventional cluster data.

Table 13 Summary data for lowland dairy farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 34		Conv. = 298	
Average farm size (UAA)	109.2		98.1	
Business Size (ESU)	102		100	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	160455	1469	139642	1423
Livestock subsidies	2432	22	3336	34
Cropping outputs	7956	73	9465	96
AAPS / Set-aside	6209	57	5021	51
Miscellaneous	6603	60	6857	70
Agri-env. payments	5445	50	214	2
TOTAL OUTPUTS	189101	1731	164535	1677
Livestock inputs	62449	572	48578	495
Crop inputs	4917	45	12578	128
Labour	19963	183	19736	201
Machinery	32871	301	26229	267
General	13752	126	11402	116
Land & rent	29871	273	20948	214
TOTAL INPUTS	163822	1500	139472	1422
NFI	25279	231	25062	255
Less farmer/spouse labour	15594	143	16848	172
Add paid management	0	0	20	0
Add BLSA	692	6	1441	15
MII	10377	95	9675	99
ONI	21976	201	24844	253
Cash Income	38387	351	46006	469

Table 14 Summary cropping data for lowland dairy farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	4253	5583	4.7	8.1	3.1	5.9	152	74
Barley	1838	3749	3.6	7.1	3.8	4.8	70	65
Other cereals	1918	507	2.2	0.9	4.3	5.1	175	0
Total cereals	8009	9839	10.5	16.0	N/A	N/A	N/A	N/A
Oil seed rape	0	801	0.0	1.2	0.0	2.0	0	150
Linseed	0	1	0.0	0.0	0.0	0.0	0	0
Peas/Beans	878	255	2.2	0.5	2.3	3.0	n/d	n/d
Potatoes	687	185	0.2	0.1	16.2	34.0	251	98
Sugarbeet	688	193	0.8	0.1	19.0	46.3	43	29
Horticulture	0	0	0.0	0.0	n/d	n/d	n/d	n/d
Other	28	78	0.1	0.1	n/a	n/a	n/d	n/d
Total (all)	10289	11352	13.9	18.0	N/A	N/A	N/A	N/A

* Excluding transitional agri-money compensation and previous crop disposal

yield and price data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	41	49	34	45
Barley	18	33	26	39
Other cereals	19	4	16	5
Total cereals	78	87	76	89
Oil seed rape	0	7	0	7
Linseed	0	0	0	0
Peas/Beans	9	2	16	3
Potatoes	7	2	2	0
Sugarbeet	7	2	6	1
Horticulture	0	0	0	0
Other	0	1	1	0
Total (all)	100	100	100	100

4.4 LFA dairy farms

In total, six organic farms have been used for the lowland dairy analysis. Geographically, two farms were found in the North and the remaining four were found in Wales.

The average farm size was 12% and dairy cow numbers were 8% higher in the organic sample compared to the comparable conventional farms. Other key differences between the two samples included significantly greater net farm income (NFI) and management and investment income (MII) for the organic farms. The implied organic milk price was 22.4p/litre compared to 19.1p/litre received by the conventional farms and milk yield was 11% lower in the organic sample at 4591 litres. Cropping output was greater in the organic sample as there was some horticultural activity amongst the farms despite a similar area of cropping. In total, five of the organic LFA dairy farms had a greater NFI than their conventional cluster data.

Table 15 Summary data for LFA dairy farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 6		Conv. = 31	
Average farm size (UAA)	85.6		75.9	
Business Size (ESU)	68		64	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	84395	986	75180	990
Livestock subsidies	1897	22	1705	22
Cropping outputs	8245	96	2377	31
AAPS / Set-aside	1266	15	1077	14
Miscellaneous	4452	52	4791	63
Agri-env. payments	6981	82	1261	17
TOTAL OUTPUTS	107235	1253	86392	1138
Livestock inputs	25273	295	29249	385
Crop inputs	5242	61	5909	78
Labour	11488	134	6564	86
Machinery	17960	210	15367	202
General	7867	92	7522	99
Land & rent	11992	140	13823	182
TOTAL INPUTS	79822	933	78435	1033
NFI	27414	320	7957	105
Less farmer/spouse labour	15889	186	16650	219
Add paid management	0	0	0	0
Add BLSA	708	8	1201	16
MII	12232	143	-7492	-99
ONI	23706	277	5494	72
Cash Income	33798	395	17417	229

Table 16 Summary cropping data for LFA dairy farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	638	125	0.4	0.2	3.3	7.0	167	75
Barley	0	1887	0.0	4.2	0.0	5.2	0	68
Other cereals	1838	37	2.4	0.1	4.3	5.5	0	0
Total cereals	2475	2049	2.8	4.4	N/A	N/A	N/A	N/A
Oil seed rape	0	78	0.0	0.2	0.0	2.0	0	130
Linseed	0	0	0.0	0.0	0.0	0.0	0	0
Peas/Beans	0	0	0.0	0.0	0.0	0.0	n/d	n/d
Potatoes	2892	0	0.6	0.0	27.9	0.0	336	0
Sugarbeet	0	0	0.0	0.0	0.0	0.0	0	0
Horticulture	3219	0	0.7	0.0	n/d	n/d	n/d	n/d
Other	0	0	0.0	0.0	n/a	n/a	n/d	n/d
Total (all)	8586	2127	4.1	4.6	N/A	N/A	N/A	N/A

* Excluding transitional agri-money compensation and previous crop disposal

Price and yield data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	7	6	10	4
Barley	0	89	0	92
Other cereals	21	2	57	1
Total cereals	29	96	67	97
Oil seed rape	0	4	0	3
Linseed	0	0	0	0
Peas/Beans	0	0	0	0
Potatoes	34	0	15	0
Sugarbeet	0	0	0	0
Horticulture	37	0	18	0
Other	0	0	0	0
Total (all)	100	100	100	100

4.5 Lowland cattle and sheep farms

In total, 18 organic farms have been used for lowland cattle and sheep analysis. Geographically, one farm was in the North, five in Wales, 10 in the West and two from Central and Eastern England.

For this farm type, average farm size was similar, whilst the standard gross margins for the organic sample were slightly lower than the comparable conventional farms. This is reflected in the average livestock figures for the two samples, which were lower for the organic farms by 15% on a livestock unit basis. Overall, the organic farms showed a higher net farm income in comparison to the conventional farms, although both samples had a negative management and investment income (MII) value. In total, 13 of the organic lowland farms had a higher NFI than their conventional clusters.

Table 17 Summary data for lowland cattle and sheep farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 18		Conv. = 172	
Average farm size (UAA)	77.8		77.4	
Business Size (ESU)	26		30	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	23431	301	25805	333
Livestock subsidies	9320	120	11234	145
Cropping outputs	1911	25	4893	63
AAPS / Set-aside	1868	24	1535	20
Miscellaneous	5837	75	5881	76
Agri-env. payments	7593	98	845	11
TOTAL OUTPUTS	49959	642	50192	648
Livestock inputs	8091	104	11965	155
Crop inputs	2160	28	4265	55
Labour	2968	38	7885	102
Machinery	11578	149	11231	145
General	5861	75	5579	72
Land & rent	13775	177	12342	159
TOTAL INPUTS	44432	571	53267	688
NFI	5527	71	-3075	-40
Less farmer/spouse labour	15185	195	13534	175
Add paid management	0	0	5	0
Add BLSA	-136	-2	671	9
MII	-9794	-126	-15933	-206
ONI	5830	75	-1227	-16
Cash Income	7575	97	10291	133

Table 18 Summary cropping data for lowland cattle and sheep farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	400	456	0.7	0.8	5.2	4.9	95	85
Barley	824	2153	1.8	4.1	3.3	5.0	102	67
Other cereals	979	649	1.3	1.2	3.5	4.9	165	0
Total cereals	2203	3257	3.8	6.1	N/A	N/A	N/A	N/A
Oil seed rape	0	0	0.0	0.0	0.0	0.0	0	0
Linseed	264	0	1.0	0.0	0.0	0.0	0	0
Peas/Beans	0	28	0.0	0.1	0.0	1.5	n/d	n/d
Potatoes	0	23	0.0	0.0	0.0	32.6	0	76
Sugarbeet	0	0	0.0	0.0	0.0	0.0	0	0
Horticulture	422	0	0.2	0.0	n/d	n/d	n/d	n/d
Other	0	0	0.0	0.0	n/a	n/a	n/d	n/d
Total (all)	2889	3308	5.1	6.2	N/A	N/A	N/A	N/A

* Excluding transitional agrimony compensation and previous crop disposal

Price and yield data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	14	14	15	12
Barley	29	65	35	66
Other cereals	34	20	26	20
Total cereals	76	98	76	99
Oil seed rape	0	0	0	0
Linseed	9	0	20	0
Peas/Beans	0	1	0	1
Potatoes	0	1	0	0
Sugarbeet	0	0	0	0
Horticulture	15	0	4	0
Other	0	0	0	0
Total (all)	100	100	100	100

4.6 LFA cattle and sheep farms

In total, 25 organic farms have been used for the LFA cattle and sheep analysis consisting of three farms in the North, 21 farms in Wales and one farm in the West.

On comparing the two samples, the total area and the standard gross margins were similar. Key system differences included less livestock on the organic farms with 40% less sheep, however cattle numbers were similar. Net farm income (NFI) was greater for the organic sample than for the conventional farms, but management and investment income (MII) for both datasets was negative. A main difference in output for the organic sample was agri-environmental payments, which represented 21.4% of total output compared with 2.1% for the conventional farms. In total, 16 or 64% of the organic farms had a higher NFI than their conventional clusters.

Table 19 Summary data for LFA cattle and sheep farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 25		Conv. = 320	
Average farm size (UAA)	123.3		113.2	
Business Size (ESU)	29		36	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	25297	205	31940	282
Livestock subsidies	12601	102	16203	143
Cropping outputs	195	2	827	7
AAPS / Set-aside	361	3	135	1
Miscellaneous	7352	60	11492	102
Agri-env. payments	12501	101	1533	14
TOTAL OUTPUTS	58308	473	62130	549
Livestock inputs	14077	114	18278	162
Crop inputs	2353	19	4308	38
Labour	5251	43	7339	65
Machinery	13368	108	13012	115
General	4764	39	5326	47
Land & rent	12052	98	12156	107
TOTAL INPUTS	51864	420	60418	534
NFI	6443	52	1711	15
Less farmer/spouse labour	13802	112	13565	120
Add paid management	0	0	0	0
Add BLSA	1101	9	534	5
MII	-6258	-51	-11320	-100
ONI	8529	69	4120	36
Cash Income	13486	109	16990	150

Table 20 Summary cropping data for LFA cattle and sheep farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	0	21	0.0	0.0	0.0	4.9	0	70
Barley	399	189	0.6	0.4	5.1	4.8	90	73
Other cereals	186	106	0.4	0.2	3.8	4.3	0	0
Total cereals	585	316	1.0	0.7	N/A	N/A	N/A	N/A
Oil seed rape	0	0	0.0	0.0	0.0	0.0	0	0
Linseed	0	0	0.0	0.0	0.0	0.0	0	0
Peas/Beans	0	0	0.0	0.0	0.0	0.0	n/d	n/d
Potatoes	0	13	0.0	0.0	0.0	21.0	0	106
Sugarbeet	0	0	0.0	0.0	0.0	0.0	0	0
Horticulture	0	0	0.0	0.0	n/d	n/d	n/d	n/d
Other	0	0	0.0	0.0	n/a	n/a	n/d	n/d
Total (all)	585	329	1.0	0.7	N/A	N/A	N/A	N/A

* Excluding transitional agri-money compensation and previous crop disposal

Price and yield data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	0	6	0	5
Barley	68	58	64	61
Other cereals	32	32	36	33
Total cereals	100	96	100	99
Oil seed rape	0	0	0	0
Linseed	0	0	0	0
Peas/Beans	0	0	0	0
Potatoes	0	4	0	1
Sugarbeet	0	0	0	0
Horticulture	0	0	0	0
Other	0	0	0	0
Total (all)	100	100	100	100

4.7 Mixed farms

In total, there were 20 organic mixed farms comprising four cropping and dairy farms, 13 cropping and beef/sheep farms, one cropping and pig/poultry unit and two mixed livestock farms. One farm was located in the North, one two in Wales, 13 in the West and four farms were in Central and Eastern England.

Overall, the clustering procedure for this varied group identified comparable conventional farms with similar average farm sizes and standard gross margins. Overall, the organic sample had a higher net farm income (NFI) and management and investment income (MII). A key difference can be found in a lower net worth in the organic sample; this is principally due to 71% of land being tenanted compared to only 40% for the conventional farms. In total, 14 of the organic farms had a higher NFI than their conventional clusters.

Table 21 Summary data for mixed farms (£/farm & £/ha), 2001/02

Financial Year Data	2001/02		2001/02	
Sample number	Organic = 20		Conv. = 120	
Average farm size (UAA)	171.4		162.4	
Business Size (ESU)	91		91	
	£/farm	£/ha	£/farm	£/ha
Livestock outputs	92943	542	67692	417
Livestock subsidies	10200	60	12243	75
Cropping outputs	34071	199	34924	215
AAPS / Set-aside	18803	110	18781	116
Miscellaneous	7866	46	14495	89
Agri-env. payments	11183	65	1307	8
TOTAL OUTPUTS	175066	1022	149443	920
Livestock inputs	38514	225	32823	202
Crop inputs	11808	69	21111	130
Labour	31718	185	22520	139
Machinery	34798	203	31431	194
General	12571	73	12312	76
Land & rent	29966	175	29898	184
TOTAL INPUTS	159376	930	150095	924
NFI	15691	92	-661	-4
Less farmer/spouse labour	12832	75	14004	86
Add paid management	425	2	245	2
Add BLSA	-307	-2	1029	6
MII	2977	17	-13391	-82
ONI	12459	73	3371	21
Cash Income	32805	191	27697	171

Table 22 Summary cropping data for mixed farms

	Enterprise output* (£)		Area (ha)		Yield (t / ha)		Price (£ / t)	
	Org	Con	Org	Con	Org	Con	Org	Con
Wheat	10794	20396	16.4	29.4	3.3	6.6	149	74
Barley	4720	11472	9.3	21.9	2.7	5.1	124	65
Other cereals	5572	3417	9.4	6.4	3.3	5.1	129	0
Total cereals	21087	35284	35.1	57.8	N/A	N/A	N/A	N/A
Oil seed rape	476	4276	1.8	8.2	0.3	2.3	200	143
Linseed	0	45	0.0	0.2	0.0	1.2	0	0
Peas/Beans	5312	2722	10.1	6.3	2.1	2.7	n/d	n/d
Potatoes	5989	272	3.3	0.1	20.7	59.1	203	100
Sugarbeet	0	1439	0.0	0.9	0.0	47.4	0	29
Horticulture	6209	180	2.3	0.2	n/d	n/d	n/d	n/d
Other	929	197	1.6	0.5	n/a	n/a	n/d	n/d
Total (all)	40001	44416	54.1	74.1	N/A	N/A	N/A	N/A

* Excluding transitional agri-money compensation and previous crop disposal

Price and yield data is implied

	Enterprise output (%)		Area (%)	
	Org	Con	Org	Con
Wheat	27	46	30	40
Barley	12	26	17	30
Other cereals	14	8	17	9
Total cereals	53	79	65	78
Oil seed rape	1	10	3	11
Linseed	0	0	0	0
Peas/Beans	13	6	19	9
Potatoes	15	1	6	0
Sugarbeet	0	3	0	1
Horticulture	16	0	4	0
Other	2	0	3	1
Total (all)	100	100	100	100

5. Gross margins

Tables 23 to 30 show gross margin results for specific livestock and crop enterprises from the organic study farms for 2001/02. Gross margin figures are for certified organic enterprises, but may include livestock sold at conventional prices. All gross margin data has been calculated by simple averages with the exception of the horticultural data that has been weighted according to the area of crop grown.

Altogether, 88 different crop enterprise gross margins were collected excluding data from the horticultural farms, but few crops had sufficient samples to validate results i.e. a minimum of five cropping enterprises. Gross margins are presented for seven crops for the 2001/02 harvest year. It should be noted that **not** all farms were eligible for arable area payments.

Table 23 Dairy gross margins (£/cow), 2001/02

Herd Size	<40	41-80	>81	Top 5	Low 5
Number of herds	1	10	9	5	5
Average farm area - actual ha	n/a	116.6	263.6	107.1	202.6
-effective ha	n/a	108.4	249.2	103.2	192.9
Average size of the farm business (ESU)	n/a	96.9	193.1	100.7	144.9
Average size of herd (dairy cows)	n/a	66	157	98	125
Average milk yield (litres per cow)	n/a	5667	5615	6665	4997
Implied milk price (ppl)	n/a	23.95	24.46	24.04	22.92
Enterprise output (£ per cow)					
Milk disposals (1)	n/a	1357	1373	1602	1145
Calves - sales and transfers out	n/a	44	54	52	52
Bulls & cows - sales and transfers out	n/a	112	57	152	67
Net milk quota	n/a	6	13	18	25
Valuation change	n/a	97	36	-1	1
Less: purchases & transfers in	n/a	258	151	152	141
Total enterprise output	n/a	1357	1382	1672	1149
Variable Costs (£ per cow)					
Concentrates	n/a	289	252	323	253
Purchased bulk feed	n/a	10	16	9	15
Stock keep	n/a	0	0	0	0
Veterinary & medicines	n/a	28	23	26	16
Other livestock costs - dairy	n/a	130	122	88	89
Total variable costs	n/a	458	413	447	374
Margin over concentrates	n/a	1058	1105	1270	878
Gross margin before forage costs	n/a	899	969	1225	776
Gross margin including forage costs	n/a	814	877	1135	694
Forage variable costs (£ per farm)					
Seeds	n/a	1062	4304	2262	2462
Fertilisers	n/a	1081	2758	297	2494
Sprays	n/a	12	0	4	0
Other forage costs	n/a	6550	15874	10537	11756
Total forage variable costs	n/a	8705	22936	13100	16712
% of forage variable costs to dairy	n/a	64	63	67	61
Forage variable costs per cow	n/a	85	92	90	82

(1) Including milk to calves and farmhouse

Table 24 Lowland cattle gross margins (£/cow), 2001/02

Herd Size	<35	>35	All herds
Number of herds	7	7	14
Average farm area - actual ha	66.3	97.4	81.8
-effective ha	60.2	93.5	76.8
Average size of the farm business (ESU)	23.1	26.4	24.8
Average size of herd (breeding cows)	28	43	35
Enterprise output (£ per cow)			
Calf Sales	3	32	17
Other store cattle - sales and transfers out	172	41	106
Bulls & cows - sales and transfers out	50	24	37
Finished cattle sales	150	383	267
Net SCP quota leased	-18	-17	-17
Cattle subsidies - SCP	155	184	169
Cattle subsidies - BSP	84	79	82
Cattle subsidies - other	7	23	15
Valuation change	28	36	32
Less: purchases & transfers in	88	49	69
Total enterprise output	543	736	640
Variable Costs (£ per cow)			
Concentrates	36	65	51
Purchased bulk feed	0	23	11
Stock keep	0	0	0
Veterinary & medicines	17	20	19
Other livestock costs - beef	36	74	55
Total variable costs	89	182	136
Gross margin before forage costs	454	554	504
Gross margin including forage costs	398	493	445
Forage variable costs (£ per farm)			
Seeds	360	235	298
Fertilisers	267	477	372
Sprays	0	0	0
Other forage costs	1398	2546	1972
Total forage variable costs	2026	3258	2642
% of forage variable costs to beef	76	82	79
Forage variable costs per cow	56	62	59

Table 25 LFA cattle gross margins (£/cow), 2001/02

Herd Size	<20	20-40	>41	All herds
Number of herds	5	7	1	13
Average farm area - actual ha	169.7	154.6	n/a	159.3
-effective ha	133.5	121.8	n/a	127.2
Average size of the farm business (ESU)	2.2	2.4	n/a	2.5
Average size of herd (breeding cows)	10	23	n/a	24
Enterprise output (£ per cow)				
Calf Sales	6	7	n/a	8
Other store cattle - sales and transfers out	164	139	n/a	148
Bulls & cows - sales and transfers out	34	56	n/a	51
Finished cattle sales	41	109	n/a	96
Net SCP quota leased	-14	-17	n/a	-15
Cattle subsidies - SCP	152	157	n/a	156
Cattle subsidies - BSP	40	79	n/a	62
Cattle subsidies - other	1	9	n/a	6
Valuation change	65	134	n/a	113
Less: purchases & transfers in	34	75	n/a	63
Total enterprise output	455	598	n/a	563
Variable Costs (£ per cow)				
Concentrates	112	87	n/a	96
Purchased bulk feed	2	15	n/a	9
Stock keep	24	0	n/a	9
Veterinary & medicines	36	17	n/a	25
Other livestock costs - beef	49	58	n/a	57
Total variable costs	223	177	n/a	196
Gross margin before forage costs	232	422	n/a	368
Gross margin including forage costs	140	274	n/a	269
Forage variable costs (£ per farm)				
Seeds	135	461	n/a	300
Fertilisers	1187	2792	n/a	2095
Sprays	0	9	n/a	5
Other forage costs	1279	2535	n/a	2021
Total forage variable costs	2601	5796	n/a	4420
% of forage variable costs to beef	37	59	n/a	54
Forage variable costs per cow	93	148	n/a	98

Table 26 Lowland farms, breeding sheep gross margins (£/ewe), 2001/02

Flock Size	<200	>200	All flocks
Number of flocks	11	5	16
Average farm area - actual ha	89.5	192.8	145.9
-effective ha	82.8	178.8	135.1
Average size of the farm business (ESU)	25.3	101.2	61.6
Average size of flock (breeding ewes)	128	253	199
Lambs reared per ewe	1.11	1.40	1.27
Finished lambs sold per ewe	0.91	1.37	1.17
Enterprise output (£ per ewe)			
Lamb sales - store	2.5	0.0	1.7
- finished	43.6	44.9	49.6
Ewe and ram sales	2.9	1.8	2.8
Other sheep sales	0.0	7.9	3.5
Wool sales	1.4	0.9	1.3
Net SAP quota leased	0.0	0.0	0.0
Sheep subsidies - SAP	5.5	5.5	6.2
Sheep subsidies - other	0.0	0.0	0.0
Valuation change	-1.9	-8.3	-4.9
Less: sheep purchases	5.6	2.4	4.9
Total enterprise output	48.4	50.3	55.3
Variable Costs (£ per ewe)			
Concentrates	9.0	4.2	8.0
Purchased bulk feed	0.4	0.1	0.3
Stock keep	0.0	0.0	0.0
Veterinary & medicines	3.1	1.0	2.6
Other livestock costs - sheep	5.4	6.4	6.6
Total variable costs	18.0	11.8	17.5
Gross margin before forage costs	30.4	38.5	37.8
Gross margin including forage costs	23.8	23.1	23.2
Forage variable costs (£ per farm)			
Seeds	413	3507	1818
Fertilisers	474	147	390
Sprays	0	0	0
Other forage costs	1137	8819	4640
Total forage variable costs	2023	12472	6848
% of forage variable costs to lamb	42	31	42
Forage variable costs per ewe	6.6	15.4	14.6

Table 27 LFA farms, breeding sheep gross margins (£/ewe), 2001/02

Flock Size	<300	>300	All flocks
Number of flocks	7	6	13
Average farm area - actual ha	79.2	242.0	154.4
-effective ha	75.9	176.6	122.4
Average size of the farm business (ESU)	15.7	30.5	22.5
Average size of flock (breeding ewes)	173	681	407
Lambs reared per ewe	1.04	0.83	0.88
Finished lambs sold per ewe	0.51	0.37	0.40
Enterprise output (£ per ewe)			
Lamb sales - store	0.0	1.4	0.6
- finished	19.0	11.6	15.6
Ewe and ram sales	11.0	0.4	6.1
Other sheep sales	0.0	1.0	0.5
Wool sales	1.1	0.6	0.9
Net SAP quota leased	-0.1	0.2	0.0
Sheep subsidies - SAP	14.4	11.6	13.1
Sheep subsidies - other	0.0	0.0	0.0
Valuation change	0.4	4.5	2.3
Less: sheep purchases	1.1	1.2	1.1
Total enterprise output	44.8	30.1	38.0
Variable Costs (£ per ewe)			
Concentrates	15.6	3.4	10.0
Purchased bulk feed	0.0	0.8	0.4
Stock keep	0.0	1.4	0.6
Veterinary & medicines	3.5	1.2	2.4
Other livestock costs - sheep	8.6	1.8	5.5
Total variable costs	27.6	8.6	18.8
Gross margin before forage costs	17.2	21.5	19.2
Gross margin including forage costs	11.7	15.1	13.7
Forage variable costs (£ per farm)			
Seeds	441	151	307
Fertilisers	981	3102	1960
Sprays	9	0	5
Other forage costs	1231	2597	1861
Total forage variable costs	2662	5850	4133
% of forage variable costs to lamb	35	76	54
Forage variable costs per ewe	5.5	6.5	5.5

Table 28 Pig gross margins (£/sow), 2001/02

Herd Size	All herds
Number of herds	5
Average farm area - actual ha	538.5
-effective ha	416.5
Average size of the farm business (ESU)	180.6
Size of pig herd - average number	109
Piglets reared per sow	17.0
Enterprise output (£ per sow)	
Sales - fat pigs	1492
- store pigs	0
- weaners	0
- gilts	0
- boars and sows	0
Less : purchases / replacements	84
Total enterprise output	1408
Variable Costs (£ per sow)	
Concentrates	1001
Purchased bulk feed	4
Stock keep	0
Veterinary and medicines	21
Other livestock costs - pigs	238
Total variable costs	1264
Gross margin (£ per sow)	145

Table 29 Gross margins for organic arable crops (£/ha), 2001/02

	Winter wheat	Spring wheat	Winter barley	Spring barley	Spring Oats	Beans	Ware potatoes
Number of enterprises	14	5	7	14	10	10	5
Area of crop grown (ha.)	28	6	25	40	17	17	18
Total production (tonnes)	99	27	45	137	82	42	68
Yield tonnes per hectare	3.5	4.3	1.8	3.4	4.9	2.5	13.5
Crop Value (£ per tonne)	186	181	97	140	85	160	294
Enterprise output (£ per ha)							
Closing valuation	301	253	93	285	153	110	1
Revenue	220	430	31	57	214	185	3986
Farm house consumption, benefits in kind	0	0	0	2	10	44	0
Feed used on farm	135	88	52	137	34	57	0
Area payments and other subsidies	135	219	218	125	202	233	0
Total enterprise output	790	989	394	605	613	630	3987
Variable Costs (£ per ha)							
Seeds	50	68	36	41	63	42	651
Fertilisers	2	0	0	1	0	0	75
Sprays	12	0	27	0	0	18	197
Other crop costs	37	97	103	61	44	21	392
Casual labour	n/a	n/a	n/a	n/a	n/a	n/a	332
Total variable costs	101	165	166	102	107	80	1647
Gross margin (£ per ha)	689	824	228	504	506	550	2340

Table 30 Agronomic and economic summary for horticultural enterprises for 2001/02 cropping season

	Potatoes ¹	Calabrese ¹	S Cauli ¹	O/W Cauli ¹	Leeks ¹	S Cabb ¹
OUTPUT						
Marketable yield (t/ha)	15	4.3	1416 (doz)	886 (doz)	11.8	1450 (doz)
Price per tonne ² (£)	300	760	3.94 (doz)	4.46 (doz)	899	2.44 (doz)
TOTAL (£/ha)	4393	3295	5573	3948	10632	3530
VARIABLE COSTS (£/ha)						
Seeds/transplants	742	475	504	631	1705	673
Fertilisers (FYM)	73	23	6	26	67	19
Crop protection	407	394	329	253	5	292
Casual labour	852	430	1202	795	5664	719
Other		10	11	8	6	2
TOTAL (£/ha)	2075	1922	2052	1713	7446	1706
GROSS MARGIN (£/ha)	2318	1373	3521	2236	3186	1824
ALLOCATED FIXED COSTS (£/ha)						
Cultivations	183	113	144	121	171	124
Planting/drilling	99	278	247	239	364	354
Weeding	127	56	62	52	170	60
Spreading FYM	49	13	4	2	1	3
Spraying	20	39	40	19	18	53
Irrigation	8	80	151	100	94	60
Mechanical Harvest	304			14		
Other	20					
TOTAL (£/ha)	810	578	647	547	819	646
NET MARGIN (£/ha)	1508	795	2874	1689	2367	1178

¹Weighted averages according to area grown at least 3 farms ²All crops sold net of all market charges (transport, grading, packaging, commission) **Source: HDRA (2001)**

6. Appendices

6.1 Appendix 1. Detailed Farm Results

Table A1 Results of cropping farms, 2001/02

		Organic		Conventional	
		12		208	
Sample Number					
Average farm size (UAA)		114.2		115.1	
Business size (ESU)		70		69	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	7637	67	1714	15
	cattle	-8191	-72	-57	0
	net quota	325	3	97	1
	valuation change	6699	59	-39	0
Other cattle	output	5144	45	4086	35
	valuation change	2560	22	-488	-4
	subsidies	812	7	1631	14
Sheep -	total output	3346	29	1766	15
	valuation change	-55	0	-611	-5
	subsidies	325	3	178	2
Other livestock		24209	212	7190	62
Arable crops	output	48152	422	56771	493
	subsidies	11199	98	15574	135
By products forage and cults	output	10149	89	4556	40
	subsidies (set-aside)	3687	32	3607	31
Miscellaneous (including benefit value of farmhouses)		6624	58	11401	99
	- organic grants	9640	84	0	0
	- other agri-env.payments	1637	14	518	5
	FARM REVENUE	133899	1173	107895	937
INPUTS					
Feeds	purchased concentrates	17228	151	4788	42
	homegrown concentrates	605	5	642	6
Purchased fodder, Tack and stock keep		42	0	258	2
Veterinary and medicines		1020	9	403	4
Other livestock costs		4499	39	1229	11
Seeds -	purchased and homegrown	7584	66	5656	49
Fertilisers		1410	12	6664	58
Crop protection		1121	10	8465	74
Other crop costs		2445	21	3420	30
Labour	paid incl. paid management	11062	97	10133	88
	casual	1786	16	2168	19
Machinery	contract	9459	83	5846	51
	repairs	4396	39	5576	48
	fuels	3311	29	3667	32
General farming costs		9438	83	9636	84
Land expenses		4379	38	1635	14
Rent		10547	92	6868	60
	FARM EXPENSES	90332	791	77055	669
Excess of expenses over revenue		43567	382	30840	268
Notional inputs					
	- rental value/imputed rent	11446	100	11974	104
	- unpaid labour	4724	41	4046	35
	- machinery depreciation	7516	66	10937	95
		23685	207	26957	234
NET FARM INCOME (excl. BLSA)		19882	174	3887	34

Table A1 Results of cropping farms

	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
INCOME MEASURES				
NET FARM INCOME (excl. BLSA)	19882	174	3887	34
Less farmer and spouse labour	13580	119	12361	107
Add managerial input of paid manager	0	0	135	1
Add BLSA	254	2	-83	-1
MANAGEMENT AND INVESTMENT INCOME	6556	57	-8423	-73
NET FARM INCOME (excl. BLSA)	19882	174	3887	34
plus net rental value/imputed rent	10055	88	8998	78
minus occupier's expenses	142	1	735	6
minus interest payments	6702	59	1769	15
minus build & works depreciation	3416	30	2772	24
OCCUPIER'S NET INCOME	19678	172	7608	66
plus other imputed items	5556	49	4046	35
plus fixed asset depreciation	10978	96	13860	120
minus valuation changes	30411	266	1229	11
NOTIONAL CASH INCOME	5800	51	24284	211
TENANT'S CAPITAL - £ per farm				
Machinery	50180	440	55370	481
Livestock	21265	186	9870	86
Crops	8625	76	24549	213
Stores	2050	18	9639	84
TOTAL	82119	719	99428	864
PERFORMANCE INDICATORS				
Stocking rate (LU per eff.ha)	0.4		0.2	
LU/forage ha	1.5		1.5	
Annual Labour Units per farm	2.4		2.1	
of which farmer & spouse	1.2		1.0	
Owner Equity (%)	76.9		89.0	
ONI/Net worth (%)	5.0		1.5	
Return on tenant's capital (%)	8.0		-8.5	
Return on all capital (%)	3.3		-0.3	

Table A1 Results of cropping farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	63.3		78.7	
Tillage - fodder	2.0		0.6	
Grassland	30.2		16.5	
Fallow, land let & set aside	18.7		19.2	
Rough grazing	0.0		0.1	
Utilisable agricultural area (Effective ha.)	114.2		115.1	
Woods, roads and buildings	6.5		4.6	
TOTAL AREA (Actual ha.)	120.7		119.7	
of which forage area	32.2		17.2	
Bare land and forage hired in	0.7		2.1	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	5.5	6	0.9	1
Beef cows	4.7	6	2.7	4
Other cattle	13.3	21	8.7	16
Breeding sheep	5.3	56	2.9	27
Other sheep	0.8	21	0.8	20
Pigs	3.1	182	6.3	27
Poultry	15.4	111	3.0	19
Other livestock	0.0	0	0.0	44
TOTAL (L.U.)	48.2		25.3	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	381420	380633	406907	410959
Buildings, improvements and fixtures	16448	18592	13190	13488
Machinery	51077	49283	56215	54525
Livestock	12143	30386	10602	9138
Produce and goods in store	4645	17024	33735	36213
Quotas	9307	8591	3036	3295
Credit balances	12795	9181	56941	57319
TOTAL	487835	513689	580628	584936
EXTERNAL LIABILITIES				
Long and medium term loans	67220	93062	27051	28466
Short term loans	21291	15552	14742	14991
Overdrafts	29897	9893	18431	20710
TOTAL	118407	118508	60224	64167
NET WORTH	369429	395181	520404	520769

Table A2. Results of horticulture farms

		Organic		Conventional	
Sample Number		5		33	
Average farm size (UAA)		46.0		39.1	
Business size (ESU)		49		50	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	0	0	0	0
	cattle	0	0	0	0
	net quota	0	0	0	0
	valuation change	0	0	0	0
Other cattle	output	1527	33	268	7
	valuation change	130	3	-58	-1
	subsidies	905	20	16	0
Sheep -	total output	0	0	0	0
	valuation change	0	0	0	0
	subsidies	0	0	0	0
Other livestock		0	0	0	0
Arable crops	output	87522	1904	100865	2577
	subsidies	911	20	3345	85
By products forage and cults	output	1855	40	3604	92
	subsidies (set-aside)	644	14	783	20
Miscellaneous (including benefit value of farmhouses)		4089	89	10443	267
	- organic grants	651	14	0	0
	- other agri-env.payments	0	0	188	5
	FARM REVENUE	98235	2137	119453	3052
INPUTS					
Feeds	purchased concentrates	0	0	9	0
	homegrown concentrates	0	0	21	1
Purchased fodder, Tack and stock keep		1644	36	0	0
Veterinary and medicines		160	3	8	0
Other livestock costs		282	6	68	2
Seeds -	purchased and homegrown	11492	250	9144	234
Fertilisers		2839	62	2898	74
Crop protection		736	16	4897	125
Other crop costs		4675	102	19082	488
Labour	paid incl. paid management	1925	42	14417	368
	casual	4933	107	11641	297
Machinery	contract	6944	151	4644	119
	repairs	3764	82	5110	131
	fuels	1656	36	2404	61
General farming costs		5920	129	10621	271
Land expenses		1021	22	1567	40
Rent		1176	26	4239	108
	FARM EXPENSES	49167	1070	90771	2319
Excess of expenses over revenue		49068	1068	28682	733
Notional inputs					
	- rental value/imputed rent	9429	205	6274	160
	- unpaid labour	6152	134	3945	101
	- machinery depreciation	4553	99	5928	151
		20135	438	16146	413
NET FARM INCOME (excl. BLSA)		28933	629	12536	320

Table A2. Results of horticulture farms

	Organic 2001/02		Conventional 2001/02	
	£ / farm	£ / ha	£ / farm	£ / ha
INCOME MEASURES				
NET FARM INCOME (excl. BLSA)	28933	629	12536	320
Less farmer and spouse labour	10698	233	15426	394
Add managerial input of paid manager	0	0	0	0
Add BLSA	0	0	0	0
MANAGEMENT AND INVESTMENT INCOME	18235	397	-2890	-74
NET FARM INCOME (excl. BLSA)	28933	629	12536	320
plus net rental value/imputed rent	8527	186	3594	92
minus occupier's expenses	359	8	703	18
minus interest payments	2442	53	2948	75
minus build & works depreciation	350	8	2404	61
OCCUPIER'S NET INCOME	34309	746	10075	257
plus other imputed items	7055	153	3945	101
plus fixed asset depreciation	5200	113	9686	247
minus valuation changes	1230	27	1685	43
NOTIONAL CASH INCOME	45333	986	22020	563
TENANT'S CAPITAL - £ per farm				
Machinery	43230	941	29706	759
Livestock	3110	68	210	5
Crops	1661	36	9033	231
Stores	1185	26	6535	167
TOTAL	49187	1070	45485	1162
PERFORMANCE INDICATORS				
Stocking rate (LU per eff.ha)	0.2		0.0	
LU/forage ha	0.4		0.2	
Annual Labour Units per farm	1.9		3.5	
of which farmer & spouse	1.1		1.2	
Owner Equity (%)	91.7		86.4	
ONI/Net worth (%)	8.3		3.3	
Return on tenant's capital (%)	37.1		-6.4	
Return on all capital (%)	4.3		0.4	

Table A2. Results of horticulture farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	20.4		25.6	
Tillage - fodder	0.0		0.1	
Grassland	19.5	Grazing, hay and silage	3.9	
Fallow, land let & set aside	6.1		9.6	
Rough grazing	0.0	Effective	0.0	
Utilisable agricultural area (Effective ha.)	46.0		39.1	
Woods, roads and buildings	2.3		2.6	
TOTAL AREA (Actual ha.)	48.7		41.7	
of which forage area	19.5		4.0	
LIVESTOCK CARRIED - L.U per farm	LU	No's	LU	No's
Dairy cows	0.0	0	0.0	0
Beef cows	3.2	4	0.0	0
Other cattle	5.4	9	0.7	1
Breeding sheep	0.0	0	0.0	0
Other sheep	0.0	0	0.0	0
Pigs	0.0	0	0.0	0
Poultry	0.0	0	0.0	0
Other livestock	0.0	0	0.0	0
TOTAL (L.U.)	8.5		0.7	
ASSETS - £ per farm	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	388785	388785	259208	262472
Buildings, improvements and fixtures	5536	6126	17265	15964
Machinery	42780	43680	29374	30038
Livestock	3045	3175	239	181
Produce and goods in store	2296	3396	22038	23366
Quotas	0	0	0	0
Credit balances	4894	5667	17041	17244
TOTAL	447336	450830	345166	349266
EXTERNAL LIABILITIES				
Long and medium term loans	31022	29113	18409	23838
Short term loans	4134	4979	12576	9813
Overdrafts	5000	3304	13172	13844
TOTAL	40156	37396	44157	47496
NET WORTH	407180	413434	301009	301770

Table A3 Results of lowland dairy farms, 2001/02

		Organic		Conventional	
Sample number		34		298	
Average farm size UAA)		109		98	
Business size (ESU)		102		100	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	138695	1270	115556	1178
	cattle	-2307	-21	-1776	-18
	net quota	1513	14	2147	22
	valuation change	1836	17	514	5
Other cattle	output	15604	143	21902	223
	valuation change	396	4	-869	-9
	subsidies	2324	21	3141	32
Sheep -	total output	1346	12	1238	13
	valuation change	-301	-3	-167	-2
	subsidies	109	1	195	2
Other livestock		3672	34	1099	11
Arable crops	output	7664	70	7813	80
	subsidies	2824	26	3725	38
By products forage and cults	output	292	3	1652	17
	subsidies (set-aside)	3386	31	1296	13
Miscellaneous (including benefit value of farmhouses)		6603	60	6857	70
	- organic grants	4203	38	6	0
	- other agri-env.payments	1242	11	208	2
	FARM REVENUE	189101	1731	164535	1677
INPUTS					
Feeds	purchased concentrates	35595	326	26601	271
	homegrown concentrates	5824	53	4129	42
Purchased fodder, Tack and stock keep		4263	39	3044	31
Veterinary and medicines		3097	28	3974	41
Other livestock costs		13670	125	10831	110
Seeds -	purchased and homegrown	2884	26	2128	22
Fertilisers		1077	10	7311	75
Crop protection		26	0	1951	20
Other crop costs		930	9	1187	12
Labour	paid incl. paid management	15274	140	11846	121
	casual	1830	17	1156	12
Machinery	contract	14451	132	6913	70
	repairs	7245	66	6386	65
	fuels	3214	29	3337	34
General farming costs		13752	126	11402	116
Land expenses		6004	55	2488	25
Rent		12020	110	6100	62
	FARM EXPENSES	141156	1292	110784	1129
Excess of expenses over revenue		47945	439	53750	548
Notional inputs					
	- rental value/imputed rent	11847	108	12360	126
	- unpaid labour	2858	26	6734	69
	- machinery depreciation	7961	73	9594	98
		22667	207	28688	292
NET FARM INCOME (excl. BLSA)		25279	231	25062	255

Table A3 Results of lowland dairy farms

	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
INCOME MEASURES				
NET FARM INCOME (excl. BLSA)	25279	231	25062	255
Less farmer and spouse labour	15594	143	16848	172
Add managerial input of paid manager	0	0	20	0
Add BLSA	692	6	1441	15
MANAGEMENT AND INVESTMENT INCOME	10377	95	9675	99
NET FARM INCOME (excl. BLSA)	25279	231	25062	255
plus net rental value/imputed rent	10375	95	10284	105
minus occupier's expenses	245	2	334	3
minus interest payments	6129	56	6408	65
minus build & works depreciation	7304	67	3760	38
OCCUPIER'S NET INCOME	21976	201	24844	253
plus other imputed items	3176	29	6745	69
plus fixed asset depreciation	15239	139	13354	136
minus valuation changes	2003	18	-1064	-11
NOTIONAL CASH INCOME	38387	351	46006	469
TENANT'S CAPITAL - £ per farm				
Machinery	53643	491	52409	534
Livestock	80178	734	81334	829
Crops	7200	66	8966	91
Stores	1716	16	5826	59
TOTAL	142736	1307	148535	1514
PERFORMANCE INDICATORS				
Milk price	23.70		19.91	
Milk yield per forage hectare (litres)	8125		10411	
Milk yield per cow (litres)	5651		6235	
Milk sales per cow (£)	1339		1241	
Stocking rate (LU per eff.ha)	1.4		1.7	
LU/forage ha	1.7		2.0	
Annual Labour Units per farm	2.5		2.7	
of which farmer & spouse	1.3		1.3	
Owner Equity (%)	82.8		83.1	
ONI/Net worth (%)	4.3		4.7	
Return on tenant's capital (%)	7.3		6.5	
Return on all capital (%)	3.7		2.5	

Table A3 Results of lowland dairy farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	13.9		17.9	
Tillage - fodder	13.4		8.9	
Grassland	77.9		67.0	
Fallow, land let & set aside	3.4		3.9	
Rough grazing	0.7		0.4	
Utilisable agricultural area (Effective ha.)	109.2		98.1	
Woods, roads and buildings	5.9		3.8	
TOTAL AREA (Actual ha.)	115.5		101.9	
of which forage area	93.2		81.8	
Bare land and forage hired in	2.2		5.6	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	103.3	103	94.5	95
Beef cows	0.3	0	0.9	1
Other cattle	50.0	91	62.4	114
Breeding sheep	1.7	17	3.7	36
Other sheep	0.4	10	0.9	22
Pigs	0.0	0	1.3	11
Poultry	1.2	597	0.1	82
Other livestock	0.1	0	0.0	0
TOTAL (L.U.)	157.1		163.8	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	334297	337890	333894	336916
Buildings, improvements and fixtures	29440	27953	19066	18285
Machinery	54496	52790	51676	53142
Livestock	78832	81525	80877	81791
Produce and goods in store	8914	8917	15060	14524
Quotas	89059	86986	95294	95973
Credit balances	14146	15611	26067	32017
TOTAL	609184	611672	621934	632648
EXTERNAL LIABILITIES				
Long and medium term loans	57026	55008	55825	62275
Short term loans	10654	16747	15601	17159
Overdrafts	34278	33670	31601	27455
TOTAL	101958	105424	103027	106890
NET WORTH	507226	506247	518907	525758

Table A4 Results of LFA dairy farms, 2001/02

		Organic		Conventional	
		£/farm	£/ha	£/farm	£/ha
Sample number		6		31	
Average farm size (UAA)		86		76	
Business size (ESU)		68		64	
Dairy -	milk output	69601	813	60935	802
	cattle	-4029	-47	1422	19
	net quota	1533	18	1350	18
	valuation change	2212	26	-2017	-27
Other cattle	output	11581	135	6965	92
	valuation change	3392	40	2874	38
	subsidies	1835	21	787	10
Sheep -	total output	111	1	3745	49
	valuation change	3	0	-352	-5
	subsidies	62	1	918	12
Other livestock		-8	0	257	3
Arable crops	output	7789	91	1341	18
	subsidies	692	8	815	11
By products forage and cults	output	456	5	1036	14
	subsidies (set-aside)	574	7	262	3
Miscellaneous (including benefit value of farmhouses)		4452	52	4791	63
	- organic grants	7273	85	0	0
	- other agri-env.payments	-292	-3	1261	17
	FARM REVENUE	107235	1253	86392	1138
INPUTS					
Feeds	purchased concentrates	13770	161	16189	213
	homegrown concentrates	3120	36	2107	28
	Purchased fodder, Tack and stock keep	2904	34	1391	18
	Veterinary and medicines	734	9	1971	26
	Other livestock costs	4746	55	7590	100
Seeds -	purchased and homegrown	2976	35	471	6
	Fertilisers	1229	14	4606	61
	Crop protection	0	0	303	4
	Other crop costs	1037	12	528	7
Labour	paid incl. paid management	4718	55	2891	38
	casual	2953	34	626	8
Machinery	contract	2837	33	5096	67
	repairs	4738	55	3268	43
	fuels	1757	21	2028	27
	General farming costs	7867	92	7522	99
	Land expenses	1450	17	2024	27
	Rent	3595	42	3059	40
	FARM EXPENSES	60429	706	61672	812
	Excess of expenses over revenue	46806	547	24720	326
Notional inputs					
	- rental value/imputed rent	6947	81	8740	115
	- unpaid labour	3817	45	3047	40
	- machinery depreciation	8628	101	4976	66
		19393	227	16763	221
	NET FARM INCOME (excl. BLSA)	27414	320	7957	105

Table A4 Results of LFA dairy farms

INCOME MEASURES	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	27414	320	7957	105
Less farmer and spouse labour	15889	186	16650	219
Add managerial input of paid manager	0	0	0	0
Add BLSA	708	8	1201	16
MANAGEMENT AND INVESTMENT INCOME	12232	143	-7492	-99
NET FARM INCOME (excl. BLSA)	27414	320	7957	105
plus net rental value/imputed rent	5516	64	7253	96
minus occupier's expenses	947	11	181	2
minus interest payments	4537	53	6365	84
minus build & works depreciation	3740	44	3170	42
OCCUPIER'S NET INCOME	23706	277	5494	72
plus other imputed items	4544	53	3139	41
plus fixed asset depreciation	12245	143	8146	107
minus valuation changes	6697	78	-639	-8
NOTIONAL CASH INCOME	33798	395	17417	229
TENANT'S CAPITAL - £ per farm				
Machinery	59106	691	31231	411
Livestock	64584	755	55679	733
Crops	7233	85	5862	77
Stores	1414	17	1543	20
TOTAL	132336	1546	94315	1242
PERFORMANCE INDICATORS				
Milk price	22.36		19.11	
Milk yield per forage hectare (litres)	6273		8146	
Milk yield per cow (litres)	4591		5105	
Milk sales per cow (£)	1027		975	
Stocking rate (LU per eff.ha)	1.4		1.6	
LU/forage ha	1.4		1.7	
Annual Labour Units per farm	2.5		1.9	
of which farmer & spouse	1.4		1.4	
Owner Equity (%)	71.7		77.7	
ONI/Net worth (%)	7.1		1.7	
Return on tenant's capital (%)	9.2		-7.9	
Return on all capital (%)	3.4		-1.1	

Table A4 Results of LFA dairy farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	4.1		4.6	
Tillage - fodder	4.2		0.9	
Grassland	73.9		66.7	
Fallow, land let & set aside	0.7		1.7	
Rough grazing	2.7		2.1	
Utilisable agricultural area (Effective ha.)	85.6		75.9	
Woods, roads and buildings	5.9		4.4	
TOTAL AREA (Actual ha.)	92.4		80.3	
of which forage area	80.8		72.8	
Bare land and forage hired in	0.0		3.1	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	67.8	68	62.9	63
Beef cows	0.0	0	2.1	3
Other cattle	48.0	84	37.6	68
Breeding sheep	0.1	1	13.8	170
Other sheep	0.0	0	2.8	70
Pigs	0.0	0	0.0	0
Poultry	0.0	10	1.9	112
Other livestock	1.1	2	0.0	0
TOTAL (L.U.)	116.9		121.2	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	259349	259349	229902	229475
Buildings, improvements and fixtures	19402	20118	9227	14715
Machinery	60579	57632	30977	31485
Livestock	61478	67689	55058	56300
Produce and goods in store	8050	9243	7745	7065
Quotas	50253	50610	62138	60507
Credit balances	1897	2741	9634	8874
TOTAL	461007	467382	404680	408421
EXTERNAL LIABILITIES				
Long and medium term loans	26246	90784	47584	52741
Short term loans	10734	7455	5546	9219
Overdrafts	37562	34023	27981	28993
TOTAL	74541	132261	81111	90953
NET WORTH	386466	335121	323569	317469

Table A5. Results of lowland cattle and sheep farms, 2001/02

		Organic		Conventional	
Sample number		18		172	
Average farm size (UAA)		78		77	
Business size (ESU)		26		30	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	46	1	313	4
	cattle	1680	22	155	2
	net quota	506	7	222	3
	valuation change	-840	-11	-102	-1
Other cattle	output	9007	116	16761	217
	valuation change	8208	105	-806	-10
	subsidies	8636	111	9640	125
Sheep -	total output	4099	53	9058	117
	valuation change	408	5	-342	-4
	subsidies	684	9	1594	21
Other livestock		316	4	545	7
Arable crops	output	1913	25	2160	28
	subsidies	1074	14	1237	16
By products forage and cults	output	-2	0	2733	35
	subsidies (set-aside)	793	10	297	4
Miscellaneous (including benefit value of farmhouses)		5837	75	5881	76
	- organic grants	3883	50	3	0
	- other agri-env.payments	3709	48	842	11
	FARM REVENUE	49959	642	50192	648
INPUTS					
Feeds	purchased concentrates	2393	31	4558	59
	homegrown concentrates	883	11	1271	16
Purchased fodder, Tack and stock keep		631	8	1311	17
Veterinary and medicines		938	12	1495	19
Other livestock costs		3247	42	3330	43
Seeds -	purchased and homegrown	1080	14	527	7
Fertilisers		530	7	2940	38
Crop protection		1	0	447	6
Other crop costs		549	7	351	5
Labour	paid incl. paid management	22	0	2260	29
	casual	467	6	547	7
Machinery	contract	3517	45	2625	34
	repairs	3172	41	2487	32
	fuels	1501	19	1869	24
General farming costs		5861	75	5579	72
Land expenses		3093	40	1190	15
Rent		4012	52	3302	43
	FARM EXPENSES	31896	410	36090	466
Excess of expenses over revenue		18064	232	14102	182
Notional inputs					
	- rental value/imputed rent	6669	86	7850	101
	- unpaid labour	2479	32	5078	66
	- machinery depreciation	3389	44	4249	55
		12536	161	17177	222
NET FARM INCOME (excl. BLSA)		5527	71	-3075	-40

Table A5. Results of lowland cattle and sheep farms

INCOME MEASURES	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	5527	71	-3075	-40
Less farmer and spouse labour	15185	195	13534	175
Add managerial input of paid manager	0	0	5	0
Add BLSA	-136	-2	671	9
MANAGEMENT AND INVESTMENT INCOME	-9794	-126	-15933	-206
NET FARM INCOME (excl. BLSA)	5527	71	-3075	-40
plus net rental value/imputed rent	5058	65	5709	74
minus occupier's expenses	112	1	196	3
minus interest payments	2593	33	2289	30
minus build & works depreciation	2052	26	1377	18
OCCUPIER'S NET INCOME	5830	75	-1227	-16
plus other imputed items	3212	41	5078	66
plus fixed asset depreciation	5410	69	5626	73
minus valuation changes	6875	88	-815	-11
NOTIONAL CASH INCOME	7575	97	10291	133
TENANT'S CAPITAL - £ per farm				
Machinery	22997	295	26518	343
Livestock	39368	506	46503	601
Crops	2710	35	4482	58
Stores	467	6	1482	19
TOTAL	65543	842	78985	1020
PERFORMANCE INDICATORS				
Stocking rate (LU per eff.ha)	1.1		1.3	
LU/forage ha	1.1		1.3	
Annual Labour Units per farm	1.6		1.7	
of which farmer & spouse	1.3		1.1	
Owner Equity (%)	87.9		89.2	
ONI/Net worth (%)	1.8		-0.4	
Return on tenant's capital (%)	-14.9		-20.2	
Return on all capital (%)	-1.6		-3.3	

Table A5. Results of lowland cattle and sheep farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	5.1		6.2	
Tillage - fodder	2.0		1.2	
Grassland	69.4		66.9	
Fallow, land let & set aside	1.1		2.9	
Rough grazing	0.3		0.2	
Utilisable agricultural area (Effective ha.)	77.8		77.4	
Woods, roads and buildings	2.7		2.6	
TOTAL AREA (Actual ha.)	82.1		80.0	
of which forage area	77.0		73.5	
Bare land and forage hired in	13.7		5.1	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	0.1	0	0.5	1
Beef cows	23.1	31	16.9	23
Other cattle	42.8	77	45.0	80
Breeding sheep	13.7	149	29.6	274
Other sheep	3.6	90	6.7	168
Pigs	0.5	67	0.2	281
Poultry	0.1	25	0.1	161
Other livestock	0.0	3	0.0	1
TOTAL (L.U.)	83.9		99.0	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	265494	266045	266867	268402
Buildings, improvements and fixtures	11279	10780	6900	7108
Machinery	22843	23151	26865	26171
Livestock	35593	43144	46772	46234
Produce and goods in store	3583	2772	5767	6160
Quotas	5518	5571	10302	9254
Credit balances	23169	10323	15031	15965
TOTAL	367479	361785	378504	379294
EXTERNAL LIABILITIES				
Long and medium term loans	26746	24084	14899	15029
Short term loans	10556	10487	4474	4920
Overdrafts	11932	9345	19989	20933
TOTAL	49233	43917	39362	40882
NET WORTH	318246	317869	339143	338412

Table A6. Results of LFA cattle and sheep farms, 2001/02

		Organic		Conventional	
		£/farm	£/ha	£/farm	£/ha
Sample number		25		320	
Average farm size (UAA)		123		113	
Business size (ESU)		29		36	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	809	7	203	2
	cattle	-28	0	16	0
	net quota	24	0	61	1
	valuation change	27	0	-5	0
Other cattle	output	11687	95	13429	119
	valuation change	1693	14	54	0
	subsidies	7852	64	8277	73
Sheep -	total output	9453	77	18411	163
	valuation change	1198	10	-368	-3
	subsidies	4749	38	7926	70
Other livestock		434	4	138	1
Arable crops	output	411	3	214	2
	subsidies	182	1	117	1
By products forage and cults	output	-216	-2	613	5
	subsidies (set-aside)	179	1	18	0
Miscellaneous (including benefit value of farmhouses)		7352	60	11492	102
	- organic grants	5572	45	0	0
	- other agri-env.payments	6929	56	1533	14
	FARM REVENUE	58308	473	62130	549
INPUTS					
Feeds	purchased concentrates	6096	49	8167	72
	homegrown concentrates	286	2	187	2
Purchased fodder, Tack and stock keep		2304	19	4203	37
Veterinary and medicines		1799	15	2222	20
Other livestock costs		3592	29	3499	31
Seeds -	purchased and homegrown	322	3	191	2
Fertilisers		1775	14	3661	32
Crop protection		35	0	101	1
Other crop costs		221	2	355	3
Labour	paid incl. paid management	2073	17	1813	16
	casual	931	8	718	6
Machinery	contract	3608	29	1972	17
	repairs	3187	26	2688	24
	fuels	2138	17	2597	23
General farming costs		4764	39	5326	47
Land expenses		2569	21	1694	15
Rent		570	5	1602	14
	FARM EXPENSES	36271	294	40996	362
Excess of expenses over revenue		22036	179	21134	187
Notional inputs					
	- rental value/imputed rent	8912	72	8860	78
	- unpaid labour	2247	18	4808	42
	- machinery depreciation	4434	36	5755	51
		15593	126	19423	172
NET FARM INCOME (excl. BLSA)		6443	52	1711	15

Table A6. Results of LFA cattle and sheep farms

INCOME MEASURES	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
NET FARM INCOME (excl. BLSA)	6443	52	1711	15
Less farmer and spouse labour	13802	112	13565	120
Add managerial input of paid manager	0	0	0	0
Add BLSA	1101	9	534	5
MANAGEMENT AND INVESTMENT INCOME	-6258	-51	-11320	-100
NET FARM INCOME (excl. BLSA)	6443	52	1711	15
plus net rental value/imputed rent	7628	62	7700	68
minus occupier's expenses	182	1	182	2
minus interest payments	4365	35	2891	26
minus build & works depreciation	995	8	2218	20
OCCUPIER'S NET INCOME	8529	69	4120	36
plus other imputed items	2703	22	4810	43
plus fixed asset depreciation	5381	44	7973	70
minus valuation changes	3128	25	-88	-1
NOTIONAL CASH INCOME	13486	109	16990	150
TENANT'S CAPITAL - £ per farm				
Machinery	30593	248	38492	340
Livestock	44708	362	55506	491
Crops	2064	17	2785	25
Stores	528	4	906	8
TOTAL	77893	632	97688	863
PERFORMANCE INDICATORS				
Stocking rate (LU per eff.ha)	0.7		1.1	
LU/forage ha	0.7		1.0	
Annual Labour Units per farm	1.7		1.8	
of which farmer & spouse	1.3		1.2	
Owner Equity (%)	87.2		91.8	
ONI/Net worth (%)	2.1		1.0	
Return on tenant's capital (%)	-8.0		-11.6	
Return on all capital (%)	-1.2		-2.1	

Table A6. Results of LFA cattle and sheep farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	1.0		0.7	
Tillage - fodder	0.4		0.3	
Grassland	110.2		99.4	
Fallow, land let & set aside	0.9		0.0	
Rough grazing	10.9		12.8	
Utilisable agricultural area (Effective ha.)	123.3		113.2	
Woods, roads and buildings	5.9		6.2	
TOTAL AREA (Actual ha.)	143.8		119.4	
of which forage area	123.0		121.3	
Bare land and forage hired in	3.6		8.9	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	1.0	1	0.2	0
Beef cows	21.2	28	24.2	32
Other cattle	24.6	48	27.3	54
Breeding sheep	35.4	487	57.8	703
Other sheep	7.1	181	16.4	424
Pigs	0.0	238	0.0	722
Poultry	0.0	84	0.0	405
Other livestock	0.5	0	0.1	0
TOTAL (L.U.)	89.9		126.1	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	368667	368667	318525	318752
Buildings, improvements and fixtures	4817	5928	10102	10506
Machinery	30580	30606	38301	38683
Livestock	42689	46728	55399	55613
Produce and goods in store	2497	2687	3574	3807
Quotas	14545	11331	23366	17365
Credit balances	11763	11052	20563	17674
TOTAL	475558	476999	469830	462399
EXTERNAL LIABILITIES				
Long and medium term loans	38594	36878	17506	16712
Short term loans	3267	4508	4156	4155
Overdrafts	19042	19635	16404	17117
TOTAL	60903	61021	38066	37985
NET WORTH	414655 415978		431764 424415	

Table A7. Results of mixed farms, 2001/02

		Organic		Conventional	
Sample number		20		120	
Average farm size (UAA)		171		162	
Business size (ESU)		91		91	
		£/farm	£/ha	£/farm	£/ha
Dairy -	milk output	28660	167	28273	174
	cattle	722	4	-1460	-9
	net quota	272	2	619	4
	valuation change	-998	-6	317	2
Other cattle	output	14881	87	22839	141
	valuation change	3389	20	964	6
	subsidies	9126	53	11121	68
Sheep -	total output	9830	57	8067	50
	valuation change	-607	-4	-217	-1
	subsidies	1074	6	1122	7
Other livestock		36793	215	8290	51
Arable crops	output	30868	180	30016	185
	subsidies	12582	73	15092	93
By products forage and cults	output	3203	19	4909	30
	subsidies (set-aside)	6221	36	3690	23
Miscellaneous (including benefit value of farmhouses)		7866	46	14495	89
	- organic grants	6630	39	0	0
	- other agri-env.payments	4553	27	1307	8
	FARM REVENUE	175066	1022	149443	920
INPUTS					
Feeds	purchased concentrates	23047	134	15512	96
	homegrown concentrates	3331	19	5352	33
Purchased fodder, Tack and stock keep		2124	12	1617	10
Veterinary and medicines		1910	11	2576	16
Other livestock costs		8103	47	7765	48
Seeds -	purchased and homegrown	7080	41	3746	23
Fertilisers		1907	11	8340	51
Crop protection		694	4	6841	42
Other crop costs		2127	12	2184	13
Labour	paid incl. paid management	24723	144	13999	86
	casual	1535	9	1167	7
Machinery	contract	11088	65	6016	37
	repairs	8440	49	8490	52
	fuels	4481	26	4598	28
General farming costs		12571	73	12312	76
Land expenses		4624	27	2495	15
Rent		16152	94	9820	60
	FARM EXPENSES	133937	782	112831	695
Excess of expenses over revenue		41130	240	36611	225
Notional inputs					
	- rental value/imputed rent	9189	54	17584	108
	- unpaid labour	5461	32	7354	45
	- machinery depreciation	10789	63	12327	76
		25439	148	37264	229
NET FARM INCOME (excl. BLSA)		15691	92	-661	-4

Table A7. Results of mixed farms

	Organic 2001/02		Conventional 2001/02	
	£/farm	£/ha	£/farm	£/ha
INCOME MEASURES				
NET FARM INCOME (excl. BLSA)	15691	92	-661	-4
Less farmer and spouse labour	12832	75	14004	86
Add managerial input of paid manager	425	2	245	2
Add BLSA	-307	-2	1029	6
MANAGEMENT AND INVESTMENT INCOME	2977	17	-13391	-82
NET FARM INCOME (excl. BLSA)	15691	92	-661	-4
plus net rental value/imputed rent	8013	47	14932	92
minus occupier's expenses	159	1	756	5
minus interest payments	7208	42	5751	35
minus build & works depreciation	3877	23	4394	27
OCCUPIER'S NET INCOME	12459	73	3371	21
plus other imputed items	5869	34	7354	45
plus fixed asset depreciation	14037	82	16720	103
minus valuation changes	-440	-3	-252	-2
NOTIONAL CASH INCOME	32805	191	27697	171
TENANT'S CAPITAL - £ per farm				
Machinery	71671	418	64977	400
Livestock	63776	372	62655	386
Crops	14751	86	20277	125
Stores	5861	34	10136	62
TOTAL	156059	911	158045	973
PERFORMANCE INDICATORS				
Milk price	25.36		19.93	
Milk yield per forage hectare (litres)	4020		4981	
Milk yield per cow (litres)	5447		5980	
Milk sales per cow (£)	1381		1192	
Stocking rate (LU per eff.ha)	0.7		0.8	
LU/forage ha	1.3		1.7	
Annual Labour Units per farm	3.3		2.6	
of which farmer & spouse	1.2		1.1	
Owner Equity (%)	84.3		88.5	
ONI/Net worth (%)	2.3		0.5	
Return on tenant's capital (%)	1.9		-8.5	
Return on all capital (%)	3.0		-0.5	

Table A7. Results of mixed farms

	Organic 2001/02		Conventional 2001/02	
LAND UTILISATION - hectares per farm				
Tillage - maincrops	54.4		72.5	
Tillage - fodder	5.1		5.8	
Grassland	90.5		66.2	
Fallow, land let & set aside	21.1		17.3	
Rough grazing	0.3		0.8	
Utilisable agricultural area (Effective ha.)	171.4		162.4	
Woods, roads and buildings	7.4		5.3	
TOTAL AREA (Actual ha.)	179.0		167.7	
of which forage area	96.8		78.8	
Bare land and forage hired in	3.3		6.5	
LIVESTOCK CARRIED - L.U per farm				
	LU	No's	LU	No's
Dairy cows	20.7	21	23.9	24
Beef cows	21.6	29	17.2	23
Other cattle	50.0	89	54.3	100
Breeding sheep	13.7	154	19.8	186
Other sheep	6.4	156	5.7	137
Pigs	13.8	69	14.2	89
Poultry	0.3	876	0.1	22
Other livestock	0.0	5	0.1	0
TOTAL (L.U.)	126.5		135.3	
ASSETS - £ per farm				
	Opening Value	Closing Value	Opening Value	Closing Value
Land and Property	423432	400484	518941	526156
Buildings, improvements and fixtures	18263	19581	20907	21176
Machinery	71506	71836	66744	63210
Livestock	62768	64784	61405	63904
Produce and goods in store	22074	19149	31274	29553
Quotas	19890	19381	34717	36546
Credit balances	33054	37225	33388	39848
TOTAL	650988	632441	767376	780393
EXTERNAL LIABILITIES				
Long and medium term loans	46814	45931	42680	41406
Short term loans	16880	13780	14025	14986
Overdrafts	39640	39571	28121	33274
TOTAL	103334	99283	84825	89666
NET WORTH	547654	533158	682563	690727

6.2 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.

6.3 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 home grown 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 all capital is management and investment income plus rental value expressed as a percentage of total 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.

Utilisable Agricultural Area

UAA is the land area that is actually farmed by the farmer excluding areas such as roads, farm yards, buildings woodlands, water or unused rough grazing.

Abbreviations used throughout text include:

CCF – Comparable Conventional Farms

ESU – Economic Size Unit

FBS – Farm Business Survey

LFA – Less Favoured Area

LSU – Livestock Unit

MII – Management and Investment Income

NFI – Net Farm Income

SGM – Standard Gross Margins

UAA – Utilisable Agricultural Area