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**Long term trends in the financial
performance of organic farms,
England & Wales, 2006/07–2011/12**

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1 INTRODUCTION

With organic markets in the UK under pressure since the economic crisis started in 2008, and with major changes to support scheme structures and CAP reforms just around the corner, many organic producers are wondering what the future holds. Is riding out the economic rollercoaster and staying organic the right option or would they be better off decertifying and reverting to conventional production?

Since the mid 1990s, data on organic farm financial performance in England and Wales has been collected as part of the Farm Business Survey and analysed by researchers at Aberystwyth University and the Organic Research Centre, funded until the publication of the 2011/12 report in 2013 by Defra¹. The data has also been used to support the publication of the Organic Farm Management Handbook now in its 10th edition².

This overview report brings together the data for the six years from 2006/07–2011/12 to see how the performance of organic farms has really been affected by the economic downturn. It shows that for most farm types, the profitability of organic farms has held up much better than might have been expected from the retail market trend data. The overviews also show that for most farm types, the performance of organic farms remains comparable with that of similar conventional farms. However, certain farm types such as horticulture and pigs and poultry (which are not reported here due to insufficient sample size) have fared much worse than others.

The key message of these financial results is: look again at the financial performance of organic farming before dismissing it. Look at the bottom line, not the premium prices, as they don't tell the whole story. Look at the trends over longer-time periods, not just single years, as every year can be exceptional. And look at your own farm situation, as every farm has its own set of circumstances that are relevant.

For farmers thinking about reverting to conventional production, is the grass really greener on the other side of the fence? Or is it more a case that all farmers, whether organic or not, are not receiving prices that enable them to cover costs of production adequately, and may need to be looking for different solutions to reduce costs or increase productivity and product value.

For farmers thinking about converting, particularly in the context of the automatic recognition of organic farms for the greening component of future farm support, organic production can still represent a financially viable option as well as deliver improved environmental outcomes.

1.1 Approach

Currently more than 200 wholly or partly organic farm businesses are monitored by the Farm Business Survey in England and Wales. Of these, only businesses with more than 70% fully organic certified land have been included (i.e. in-conversion farms and businesses with a minor interest in organic are excluded from the Organic Farm Income reports and this overview).

The results are presented by farm type groups according to the dominant enterprise in each case, calculated on the basis of standard gross margins. They are also compared with similar conventional farms selected on the basis of resource endowment (land area, location etc.), i.e. factors that are not influenced directly by the choice of organic or conventional management. This is done using a clustering procedure, where for each individual organic farm a group of at least three similar conventional farms is identified and the average for the cluster used as a comparator. For each farm type, the average of the individual organic farms is compared with the average of the results for each of the conventional clusters.

Clustering is carried out because the organic farms in the Farm Business Survey are selected primarily as part of the process to represent agriculture in general, not organic farming specifically, and organic farms are not distributed across the different farm types in the same proportions as conventional farms. As a

¹ The annual reports can be downloaded from the ORC website's [Organic Farm Incomes in England and Wales](#) page, or from Organic e-prints www.orgprints.org using the search term 'Organic Farm Incomes'. The 2011/12 report has been analysed and published and a 2012/13 report is in preparation, both using our own resources.

² Lampkin NH, Measures M and Padel S (eds.) *2014 Organic Farm Management Handbook*. Organic Research Centre, Newbury.



result, comparisons of the organic farms against the simple group average for conventional farms of that type could lead to distorted results. (In recent years the FBS in England has over-sampled organic farms to make sure that there are sufficient numbers for valid samples in each farm type, but the results are then adjusted to compensate when they are grouped with all farms.)

Time series data for six years are shown for each farm type. These are not, however, 'identical samples' where the same farms are present in successive years. Although identical sample comparisons are shown for pairs of years in each of the reports, changes in the sample from year to year mean that it is difficult to get sufficient continuity over longer periods for this approach. However, this also means that, particularly with smaller samples (less than 15 farms), individual farms entering or leaving the sample can have a major impact on the average results achieved. It is therefore important to be cautious when interpreting large year-to-year changes, particularly in types such as horticulture with small sample sizes.

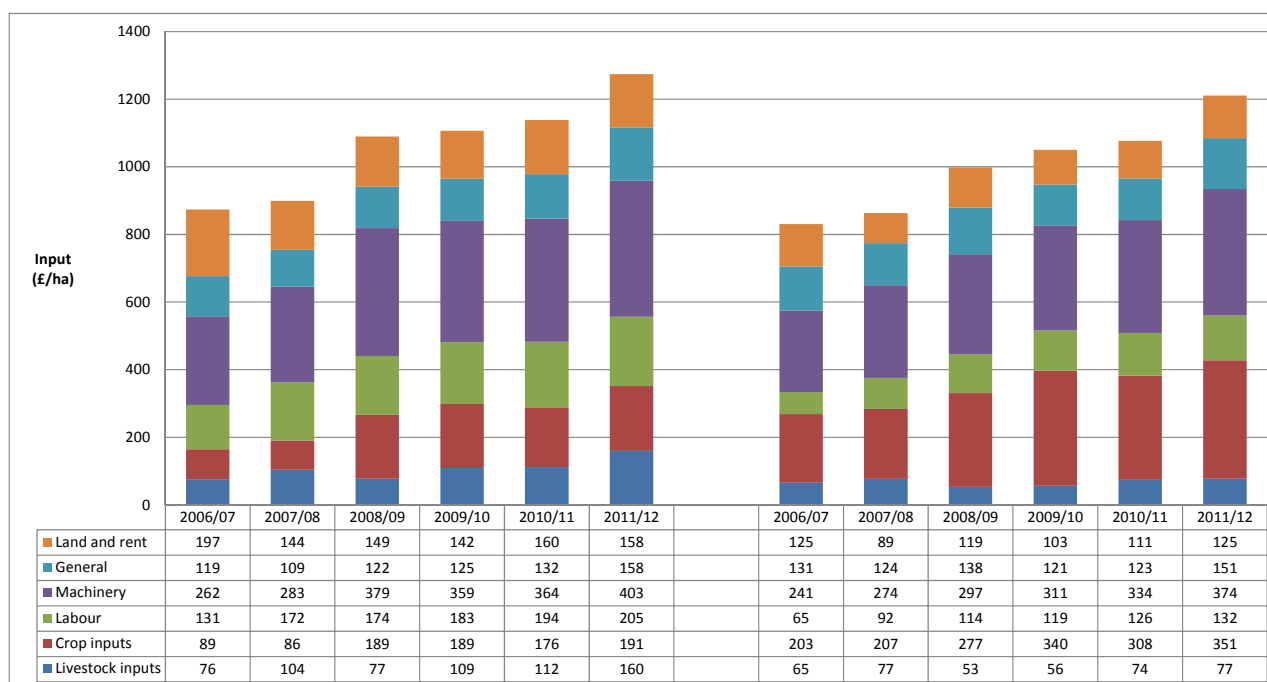
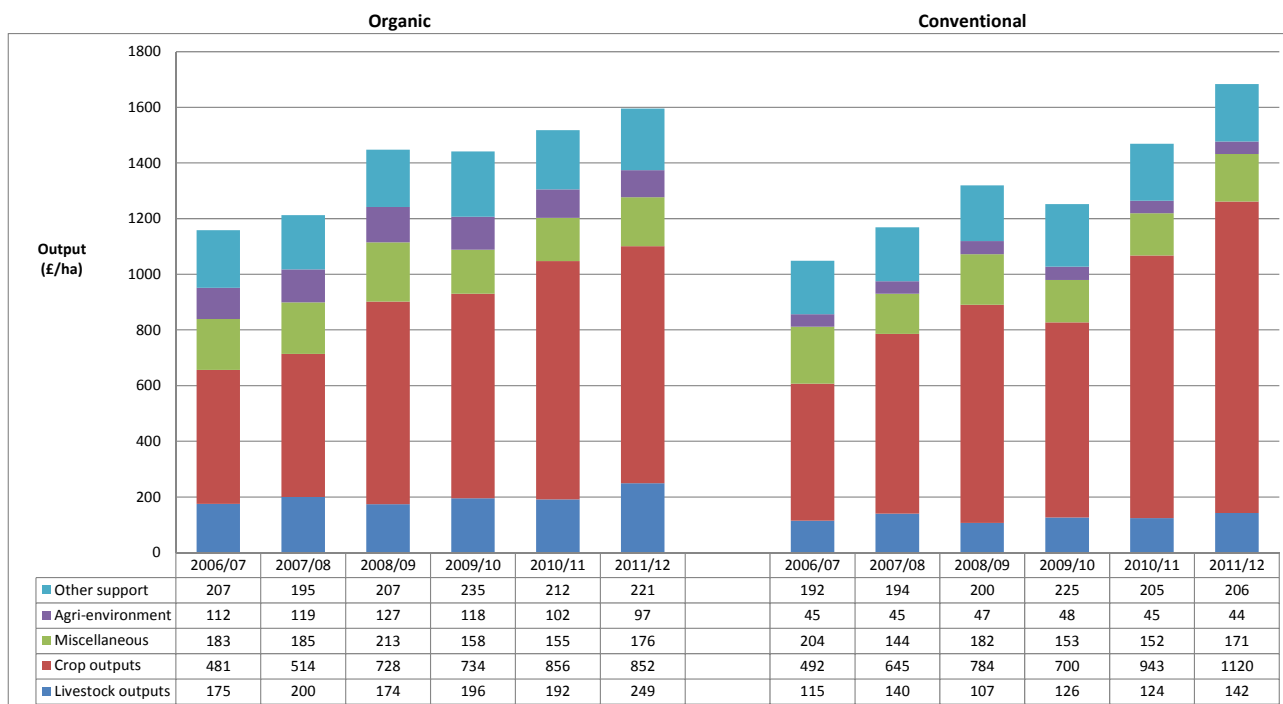
In addition to the whole-farm results for each farm type, this overview also provides production costs and enterprise gross and net margin data for selected enterprises over the last six years. The production cost data per unit of product can be usefully compared against prices received, but it is also important to remember that higher costs per unit of product often arise as a result of similar costs per ha or per farm being spread over lower total output due to lower yields per ha on organic farms.

Costs of production data include a category of 'imputed' costs. These represent the notional value (or opportunity cost) of the farmer's own land, labour and capital resources used in the business, so that it is not assumed that a price covering cash costs is sufficient if there is no return to the farmer's unpaid labour, and so that crops and livestock produced on owner-occupied and tenanted land are treated on a similar basis.

Where differences between organic and non-organic farms are discussed it should be noted that these are not necessarily statistically significant differences. Statistical tests were carried out on farm business income per farm and per hectare in the Organic Farm Incomes reports for 2010/11 and 2011/12, but have not been carried out for other variables or periods and so are not reported here.

2 CROPPING FARMS

2.1 Whole farm outputs and inputs



For organic and non-organic cropping farms, which are dominated by cereal crop production, there has been a steady increase in financial output per hectare over the last six years, with organic output per hectare typically slightly higher than non-organic, except in the most recent year. This is despite the relatively low presence of livestock to utilize the fertility building phase of rotations and the need to rely on price premiums. Crop outputs are influenced in part by price, with increases in non-organic cereal prices also driving up organic prices, although the premium in percentage terms decreased.

On organic farms, livestock output and income from agri-environment payments are higher than on non-organic farms, while miscellaneous outputs and income from other support payments (in particular the

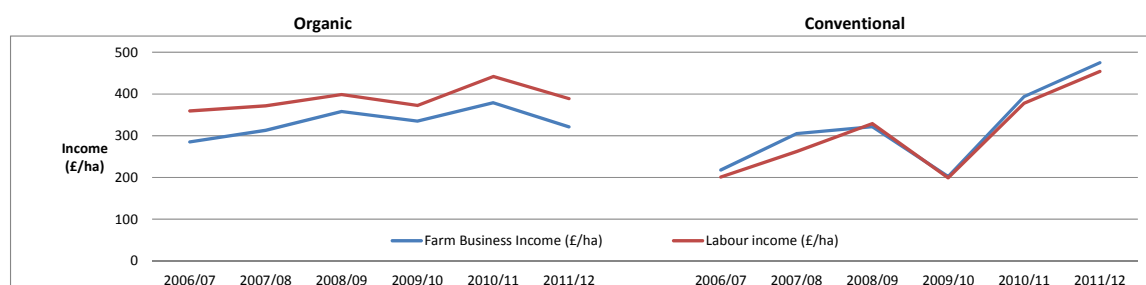
Single Farm Payment) are similar for both groups. The level of agri-environment payments per ha received by the organic farms indicate engagement beyond the Organic Entry Level Scheme payment of £60/ha.

Crop input costs per hectare were much lower on organic farms, as would be expected due to the non-use of most fertilisers and crop protection inputs. This can have a major positive impact on cash flow with reduced borrowing requirements. However, livestock input costs per farmed ha are higher, consistent with the higher numbers kept on organic farms.

Labour use and labour and machinery costs per ha were higher on the organic farms in most years, reflecting in part the higher prevalence of horticultural crops on the organic cropping farms. This may in part also be due to the continued use of ploughing on organic farms compared with increased reliance on minimum tillage on conventional farms. Due to the criticality of timing of operations, in particular for mechanical weed control, organic farmers may also be less able to benefit from the use of contractors compared with individual machinery ownership and operation.

Land and property costs per ha are also higher on organic farms. This in part reflects land rental values £15/ha higher on organic farms at the start of the reference period, rising to £50/ha higher towards the end, which may reflect the residential, as opposed to contracted land, nature of many organic farms.

2.2 Farm business and labour incomes and returns to capital



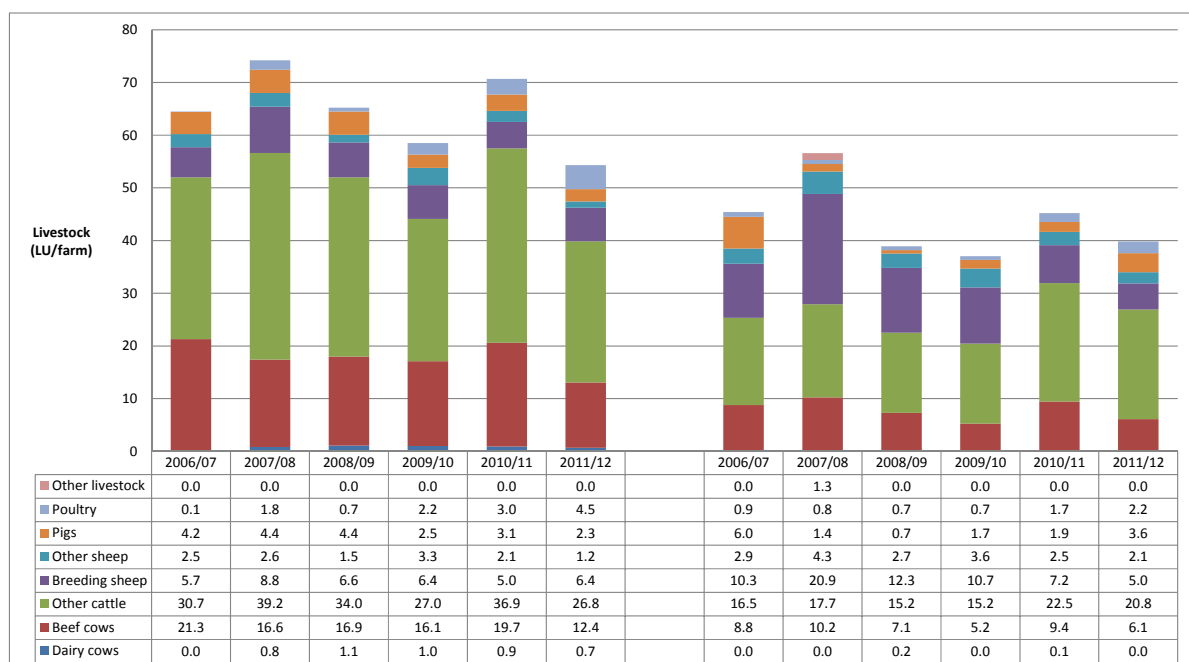
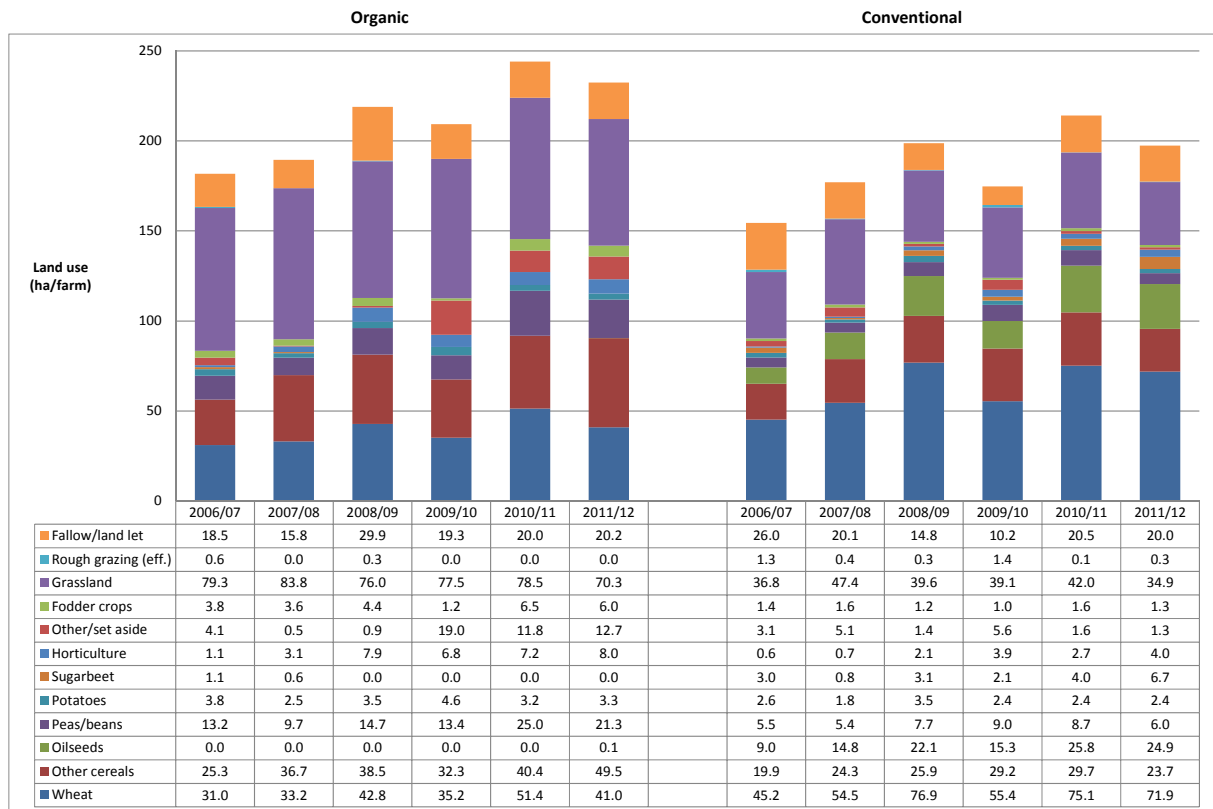
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	17	22	25	31	33	35	137	174	202	260	250	319
Average farm size (JAA)	182	196	228	218	254	240	155	179	207	182	221	204
Total outputs (£/ha)	1158	1213	1448	1442	1518	1595	1048	1169	1320	1252	1469	1683
Total inputs (£/ha)	874	899	1090	1107	1139	1274	831	863	998	1050	1077	1210
Farm Business Income (£/ha)	285	313	358	335	379	321	218	305	322	202	394	475
Farm Business income (£/farm)	51746	61467	81577	72946	96407	77196	33692	54798	66528	36767	87039	97121
FBI/Net worth (%)	7.2	5.1	4.6	4.1	4.6	3.6	4.5	5.2	4.6	2.8	5.1	5.3
Annual Labour Units (FTE/100ha)	1.4	1.6	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.3	1.2	1.2
Annual Labour Units (FTE/farm)	2.6	3.1	3.3	3.1	3.5	3.3	2.0	2.2	2.4	2.4	2.6	2.4
Labour income (£/ALU)	25088	23526	27500	26139	32122	28695	15516	21376	28354	15061	32117	38904
Labour income (£/ha)	359	372	399	372	442	389	201	262	329	199	378	454

For most of the period, the organic cropping farms performed slightly better in terms of farm business income per hectare (FBI/ha) than the comparable conventional cropping farms, despite the higher fixed costs. Only in 2011/12 did the combination of a higher increase in output and lower increase in costs on conventional farms allow their performance to move ahead. Despite the higher labour use on the organic farms, labour incomes (including wages for paid labour) per annual labour unit (ALU) and per hectare were also higher in all years except 2011/12 on the organic farms. This was also true for the return on capital (farm business income (FBI) divided by net worth).

2.3 Land use, livestock numbers and stocking rates

Total land area per farm on the organic farm was higher than conventional, and both increased over time, but this may be a reflection of changing sample composition as the number of farms in the organic sample grew. However, a higher proportion of the land on the organic farms was down to grass or fallow, and a lower total area was cropped than on the conventional sample. More significantly, the proportion of grassland on the organic farms fell over the period, from ca. 45% to 30%, with an increase in the proportion of land under arable cropping, and it may be that these changes could be affecting productivity on the organic farms due to nutrient constraints and increased weed and disease pressures. The other/set-aside category, which includes land used for environmental purposes such as wild bird mixtures, is also more prevalent on the organic farms.

Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



Stocking rates

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	65	74	65	59	71	54	45	57	39	37	45	40
Stocking rate (LU/eff. ha)	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2
Grazing LU/forage eff. ha	0.7	0.8	0.8	0.7	0.8	0.7	1.0	1.0	0.9	0.8	0.9	1.0

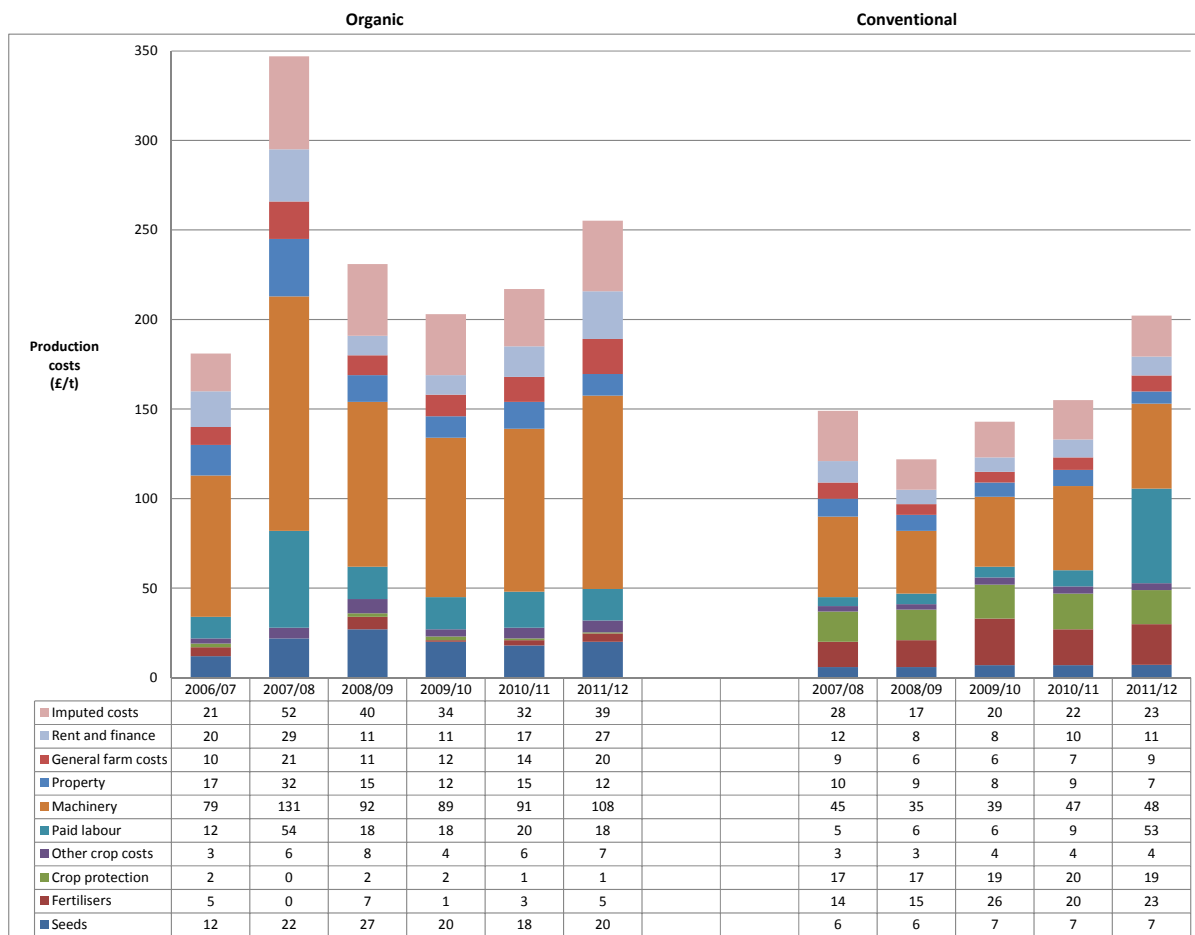
Wheat represents about 50% of the cereals grown on organic farms, compared with 70% on non-organic farms. Grain legumes (peas/beans), potatoes and horticultural crops are more prevalent on organic farms, with nearly twice as much grain legumes grown, but oilseeds and sugar beet are hardly grown at all on the organic holdings due to the lack of processing and market opportunities for these crops. For conventional farmers, oilseed rape represents a reliable, high value break crop in their cereal rotations which is not available to organic producers – the grain legumes grown on organic farms tend to be lower value and

Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12

more susceptible to weather and disease pressures, while horticultural crops will tend to be restricted to farms with good access to processors and pack-houses.

While the number of livestock kept is lower than on other organic farm types, typically, 50% more livestock are kept on organic cropping farms than on comparable conventional farms, with beef and other cattle dominant, but there are also more (free range) pigs and poultry on the organic than the conventional samples, while sheep numbers are slightly lower. Stocking rates per forage ha were slightly lower, but not particularly high on either group.

2.4 Winter wheat enterprise performance



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	26	25	31	27	28	37	195	236	233	238	272
Yield (t/ha)	4.9	3.1	3.9	4.6	4.3	4.4	7.3	8.7	8.4	8.2	8.3
Crop value (£/t)	164	267	214	186	243	250	143	113	103	149	156
Total costs (incl imputed) (£/t)	181	347	231	203	217	255	149	122	143	155	156
Total enterprise output (£/ha)	919	963	892	902	1098	1190	1102	1021	909	1292	1349
Total variable costs (£/ha)	105	88	172	121	115	142	295	370	473	412	440
Gross margin (£/ha)	814	875	720	781	982	1048	807	651	436	880	909
Total fixed costs (£/ha)	680	825	567	650	670	816	594	555	562	663	669
Net margin - actual costs (£/ha)	133	50	153	131	312	232	213	96	-126	217	240
Imputed costs (£/ha)	104	160	156	156	135	175	203	147	167	183	191
Total costs (incl imputed) (£/ha)	890	1073	895	927	920	1133	1091	1073	1202	1258	1300
Net margin - all costs (£/ha)	29	-109	-3	-25	178	57	10	-51	-293	34	49
Other output/subsidies (£/ha)	308	345	330	367	321	314	267	278	315	318	304
Net margin incl. subsidies (£/ha)	337	236	327	342	498	372	277	227	22	352	354

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

The wheat enterprise data presented here is drawn from all lowland farms producing wheat, not only the cropping farms.



Wheat yields on organic farms are typically half those on non-organic farms, while organic premium prices were ca. 90% higher than conventional at the start of the period, falling to 60% above conventional in 2011/12. Despite the lower yields, the higher prices and lower variable costs (due to the non-use of most fertilisers and sprays) allowed organic producers to achieve higher gross margins than conventional producers, even in 2011/12. It is worth noting that the yield and variable cost differences are higher for wheat than for other cereals such as oats and triticale, because of the higher intensity of nitrogen use on wheat conventionally compared with other cereals. However, while fixed costs per ha were similar or slightly higher on organic cropping farms, with savings on, for example, crop storage and handling costs due to lower total output offsetting higher costs elsewhere, the yield differences mean that when calculated per tonne produced, the fixed costs are much higher for the organic samples. This is particularly the case in 2007/8 when yields were low. While variable input costs, in particular for fertilisers and crop protection, were much lower on organic crops, seed costs were higher reflecting both higher organic seed prices and higher seed rates.

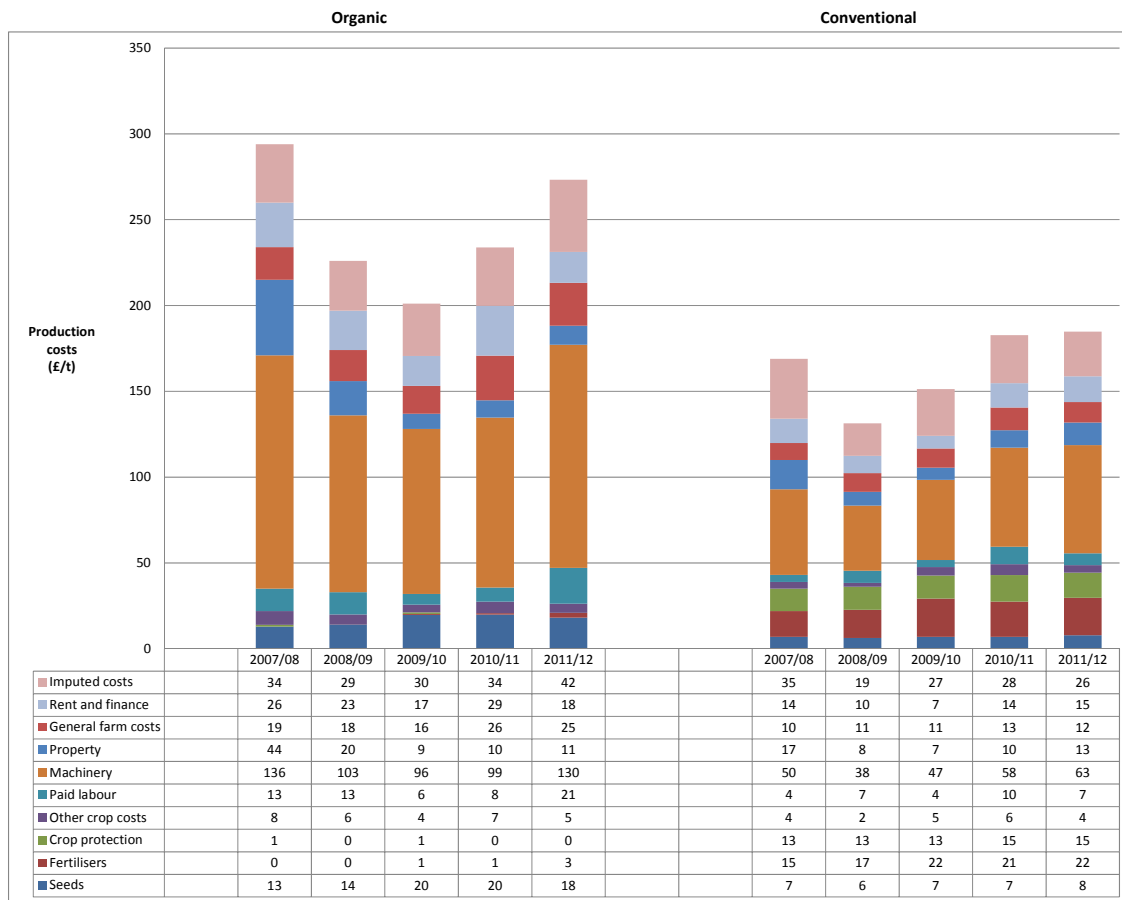
Despite the differences in costs per tonne, when calculated on a per hectare basis with more similar levels of fixed costs, organic wheat production still generated a higher net margin per ha than conventional. If imputed costs, which reflect the value of the farmer's own labour, land and capital invested, are taken into account, the advantage remains with the organic crop, and this advantage is sustained if agri-environmental and other support payments are also taken into account

While the results for the wheat enterprise can be seen as encouraging for organic production, they need to be considered alongside the performance of other crop and livestock enterprises which form part of the whole system, as it is not possible to operate organic systems only producing wheat.



2.5 Winter oats enterprise performance

Winter oats enterprise performance shows similar patterns to that for wheat. Yields of both organic and non-organic oats are lower than the equivalent wheat value, but the relative organic yields are higher, at 60% of non-organic oat yields.



	2007/08	2008/09	2009/10	2010/11	2011/12	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	25	31	19	15	17	195	236	48	53	37
Yield (t/ha)	3.2	3.4	3.8	3.6	4.1	5.8	6.6	6.6	6.2	6.4
Crop value (£/t)	197	201	136	204	264	128	97	91	145	164
Total costs (incl imputed) (£/t)	294	226	201	234	273	169	131	151	183	185
Total enterprise output (£/ha)	682	738	603	820	1097	796	678	657	1002	1140
Total variable costs (£/ha)	71	79	97	100	109	223	259	315	305	311
Gross margin (£/ha)	611	659	506	720	988	573	419	342	697	829
Total fixed costs (£/ha)	761	603	545	624	851	551	488	506	652	702
Net margin - actual costs (£/ha)	-150	56	-39	96	137	22	-69	-164	45	127
Imputed costs (£/ha)	109	100	115	122	173	200	123	180	170	168
Total costs (incl imputed) (£/ha)	941	782	757	846	1133	974	870	1001	1127	1181
Net margin - all costs (£/ha)	-259	-44	-154	-26	-36	-178	-192	-344	-125	-41
Other output/subsidies (£/ha)	370	357	382	340	329	250	259	294	336	304
Net margin incl. subsidies (£/ha)	111	313	228	314	293	72	67	-50	211	263

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

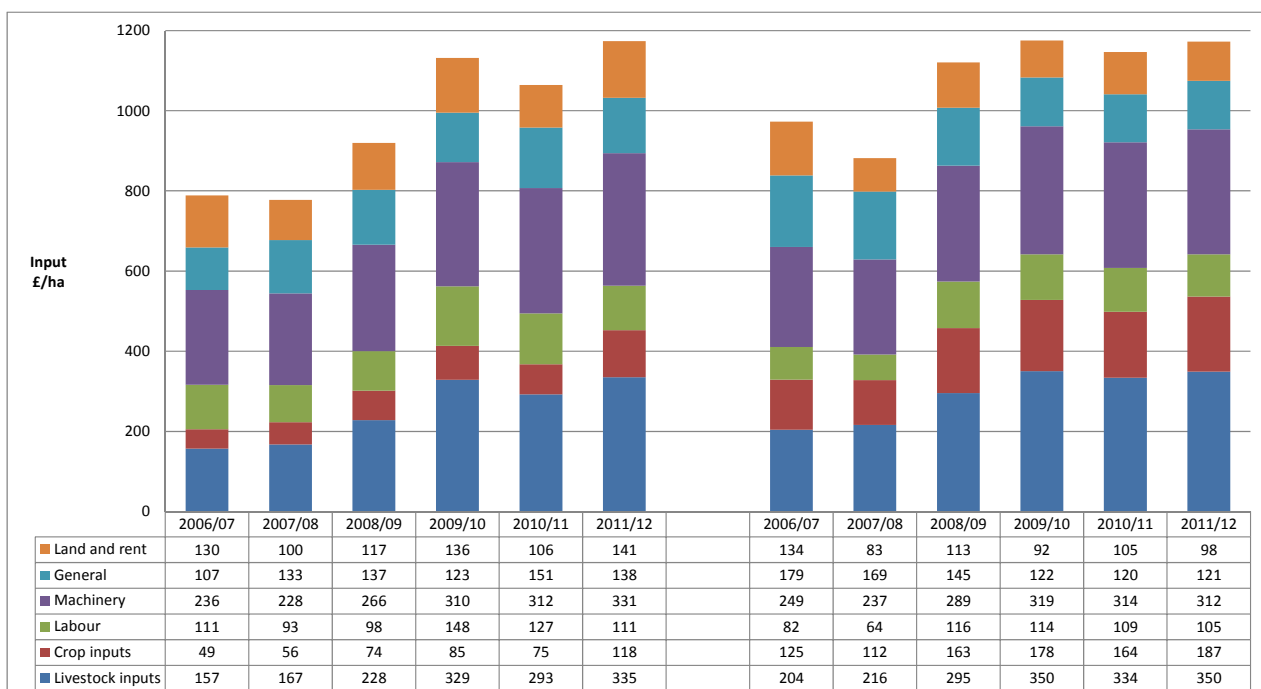
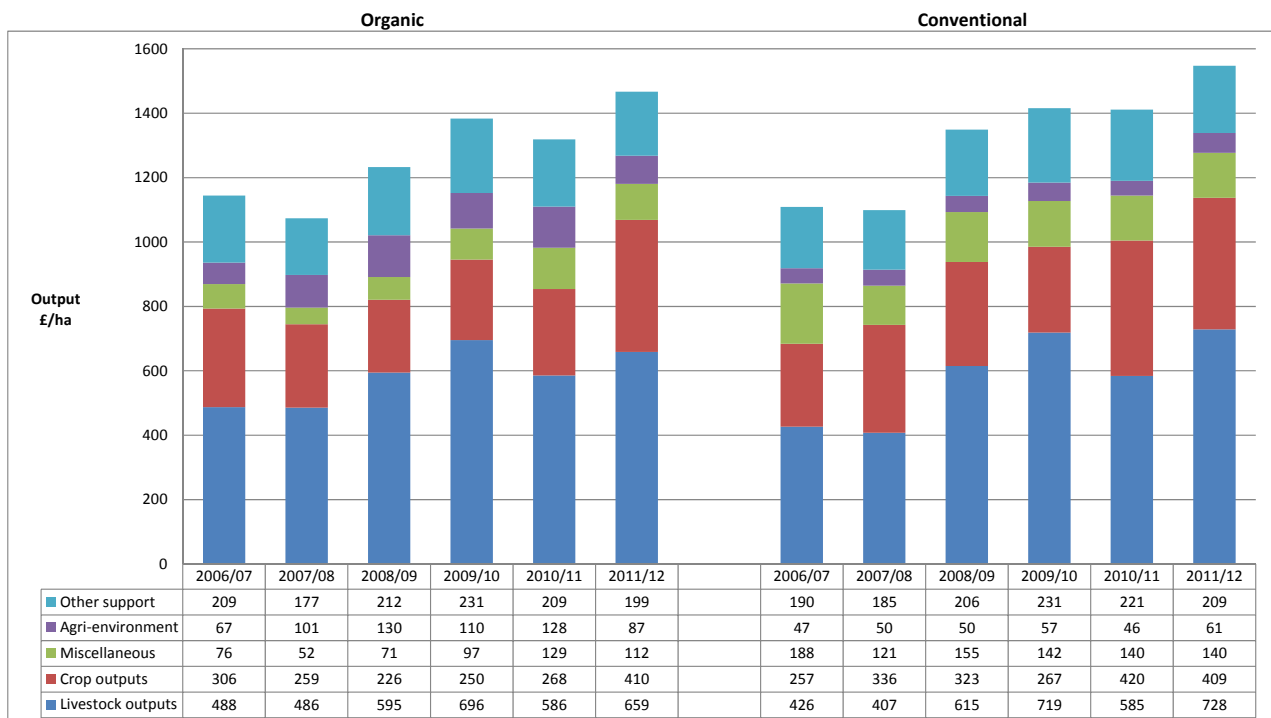
Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

3 MIXED FARMS

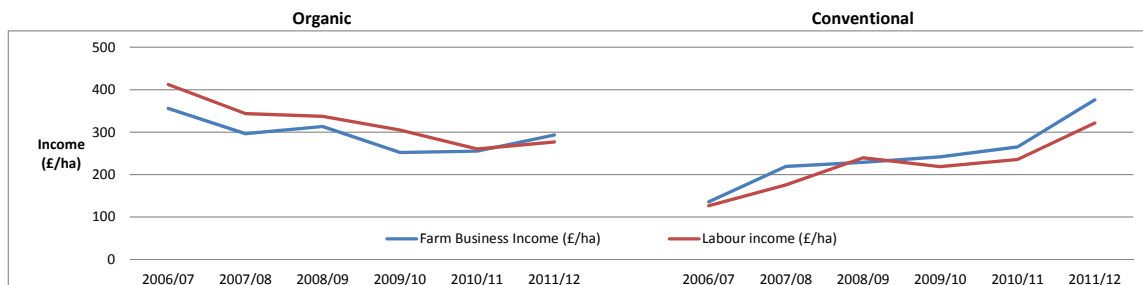
3.1 Whole farm outputs and inputs

Mixed farms are typically more reliant on livestock enterprises than cropping farms, and this is reflected in the output values per ha for both organic and non-organic samples, with values increasing following the general rise in red meat prices from 2007/08. However, crop outputs per ha were lower for the organic samples in most years. This reflected the lower percentage of farmland allocated to crop production on the organic farms (see below). The sharp increase in conventional crop outputs in 2010/11 in part reflected a change in sample composition, but it also reflects higher prices for conventional cereals at the end of the period. Lower organic crop outputs per ha were compensated to an extent by higher agri-environmental support, but from 2008/09, total output levels on the organic samples were typically £100/ha lower on the organic farms.



While livestock costs per ha were similar for both samples over the period, crop costs were lower for the organic sample reflecting reduced use of fertilisers and sprays. Labour costs per ha were only slightly higher on the organic farms (with similar annual labour unit values per 100ha and per farm), while other fixed costs showed little difference. As a result, total costs per ha were lower on the organic farms.

3.2 Farm business and labour incomes and returns to capital



	Organic						Conventional					
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	12	13	19	21	22	15	72	59	95	95	101	78
Average farm size (UAA)	153	157	177	203	198	197	141	148	151	166	173	182
Total outputs (£/ha)	1145	1074	1233	1383	1319	1467	1109	1099	1349	1416	1411	1547
Total inputs (£/ha)	789	778	919	1131	1064	1173	973	882	1121	1175	1147	1172
Farm Business Income (£/ha)	356	297	314	252	255	293	136	219	229	242	265	376
Farm Business income (£/farm)	54357	46557	55644	51097	50526	57759	19129	32423	34507	40257	46023	68387
FBI/Net worth (%)	12.7	9.3	7.5	5.3	3.5	4.3	3.3	4.1	4.2	3.5	3.6	4.5
Annual Labour Units (FTE/100ha)	1.5	1.5	1.4	1.3	1.4	1.1	1.6	1.5	1.7	1.6	1.4	1.4
Annual Labour Units (FTE/farm)	2.3	2.4	2.4	2.7	2.7	2.3	2.3	2.2	2.5	2.6	2.5	2.5
Labour income (£/ALU)	27376	22481	24954	22921	19101	24088	7744	11839	14441	13992	16365	23331
Labour income (£/ha)	412	344	338	305	260	277	127	176	240	219	236	322

Farm business incomes (FBI) per ha were higher on the organic sample, especially at the start of the period, with the non-organic farms catching up in 2010/11 and showing substantial improvement in 2011/12. In part this is due to changes in the sample composition during the period. Following the FBI trends, returns to capital (FBI/Net worth) ended the period at similar values for both samples, having started at much higher levels on the organic farms. Labour incomes remained relatively constant on the organic farms, starting the period at much higher levels than non-organic, with non-organic farms seeing improvements at the end of the period, primarily as a result of improvements in both livestock and crop prices. While some price improvements were also experienced on the organic farms, there was a closing of the gap in terms of price premiums which explains much of the improvement in conventional performance while organic farm performance remained static.

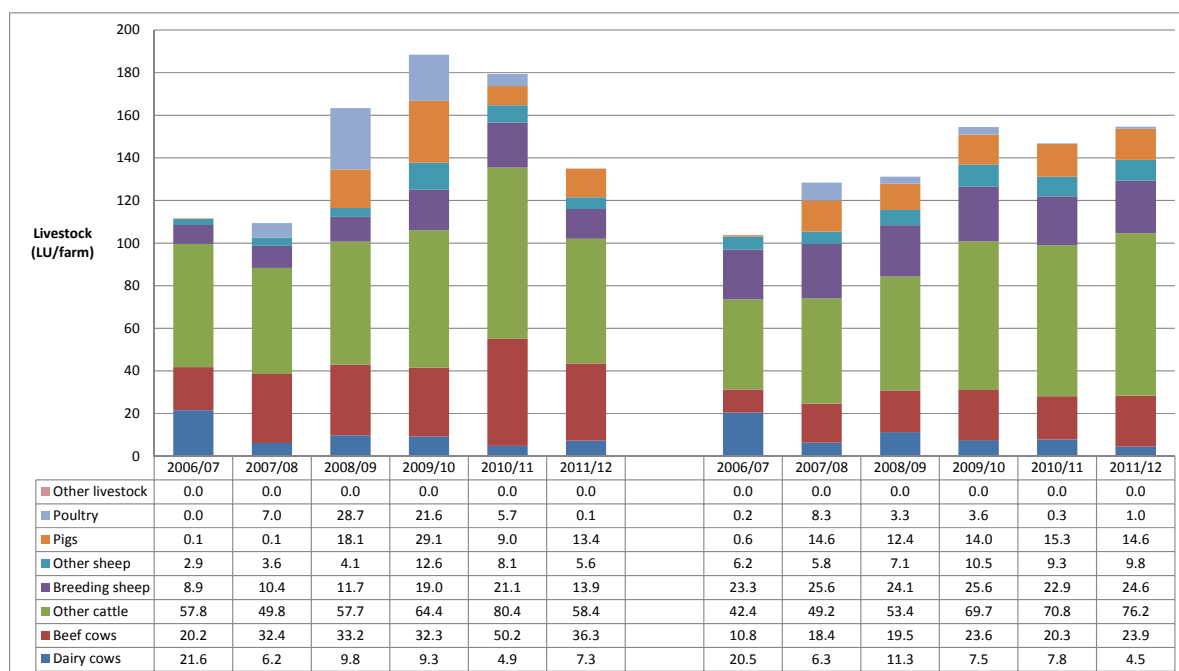
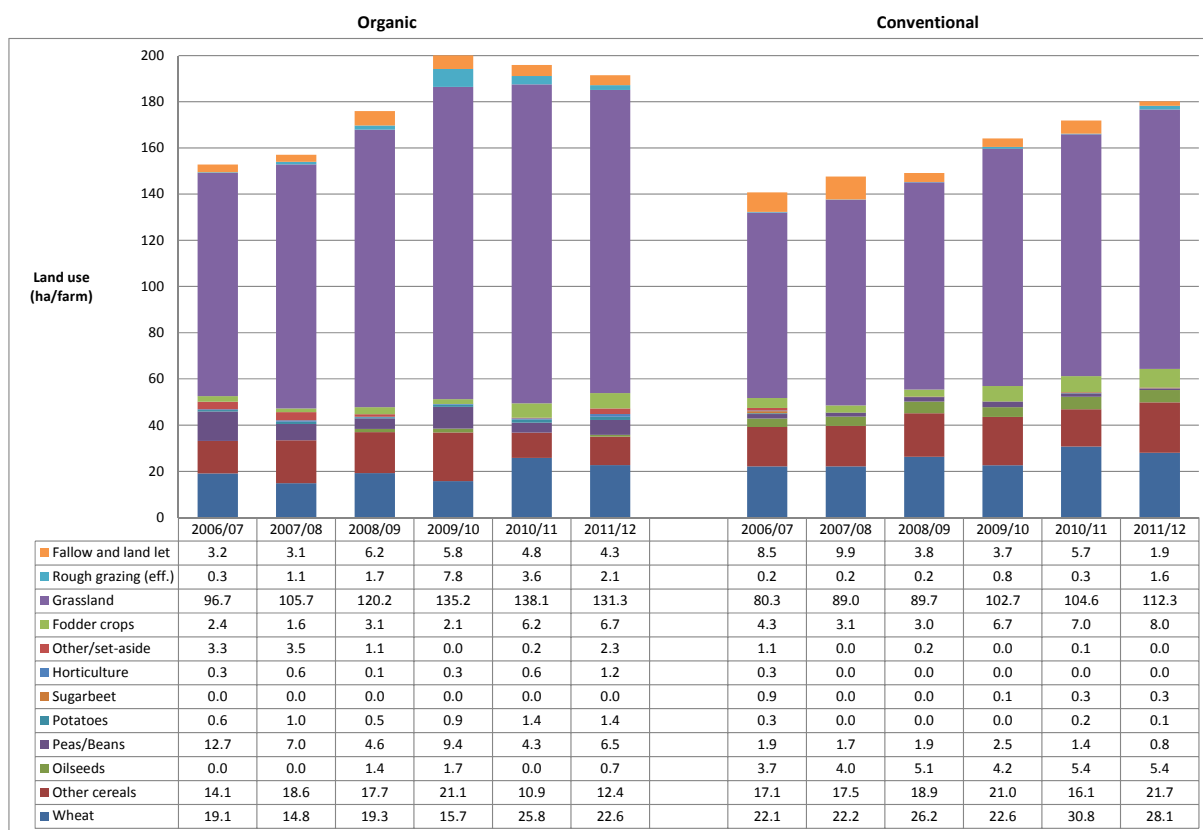
3.3 Land use, livestock numbers and stocking rates

As a proportion of the land area on the farms, crop production was typically more important on the non-organic farms, and remained at similar levels throughout the period. On the organic farms, the proportion of land used for crops fell during the period, recovering slightly in 2011/12. However, the proportion of land allocated to cereals on the organic farms was fairly constant, with the main difference due to changes in the area of grain legumes (peas/beans) produced. Virtually no oilseed crops were produced on the organic sample, while more land was used for grain legumes, potatoes and horticultural crops than on the non-organic farms. Over the period, wheat accounted for just over half the cereals grown on both the organic and the non-organic farms.

Higher total livestock numbers were kept on the organic farms, including more pigs and poultry, although there was a major reduction in their numbers in the last two years, reflecting the challenging financial context for these enterprises. Suckler beef cows were more prevalent on the organic farms, and their numbers remained consistent over the period, but total numbers of cattle on the conventional farms increased to similar levels to organic at the end of the period. The higher total livestock numbers is consistent with the higher proportion of grassland and lower stocking rates per forage ha on the organic farms. Some of the year-to-year differences in livestock numbers will be due to changes in sample composition in both groups.



Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



Stocking rates

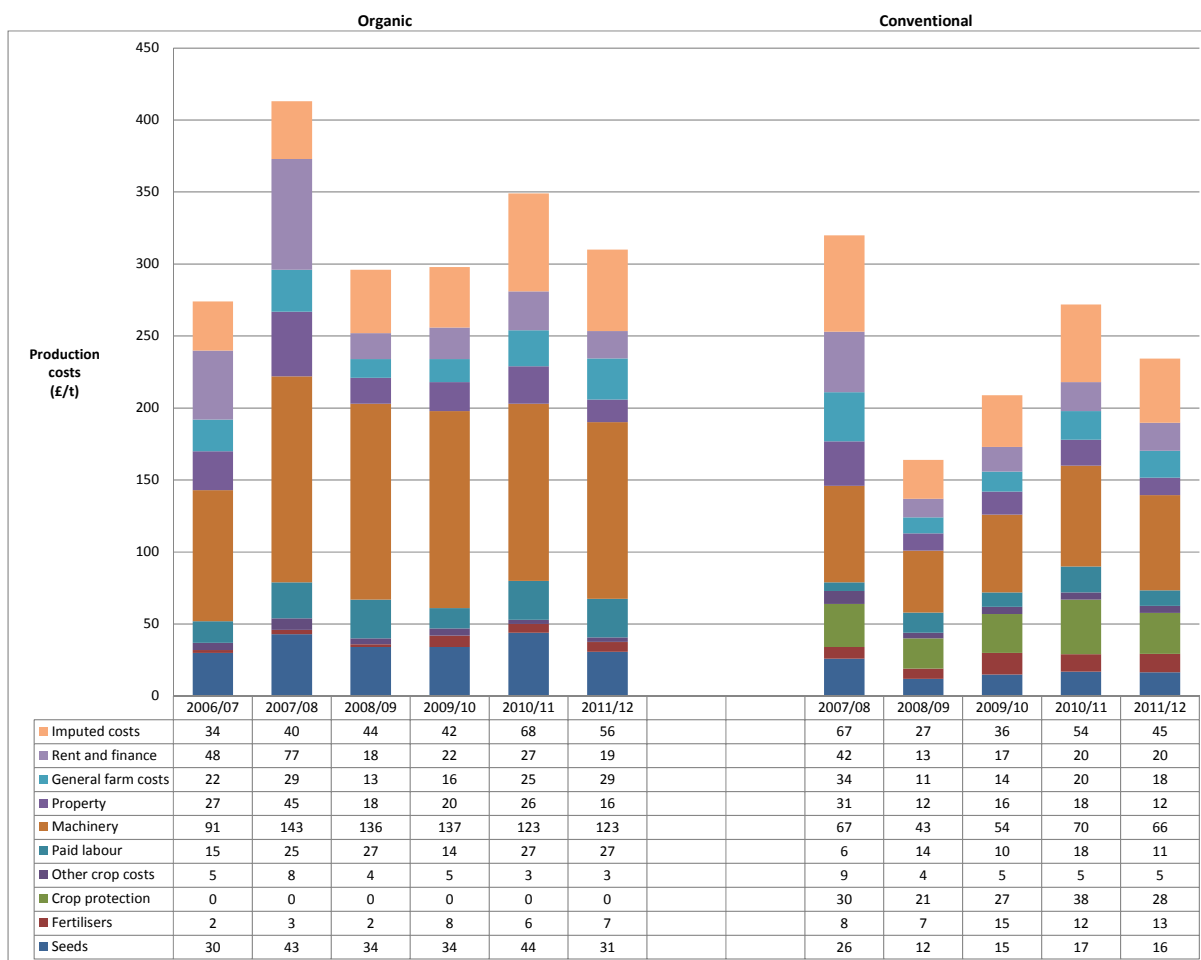
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	112	109	163	188	179	135		104	128	131	154	147	155
Stocking rate (LU/eff. ha)	0.7	0.7	0.9	0.9	0.9	0.7		0.74	0.9	0.9	0.9	0.8	0.9
Grazing LU/forage eff. ha	1.1	0.9	1.2	1.2	1.1	1.0		1.13	1.3	1.3	1.3	1.3	1.2

3.4 Field beans enterprise performance

For field bean production, organic yields are again lower, but at 75% of conventional yields the difference was not as great as for wheat. Costs of production per tonne for the organic sample was higher, in part due to spreading in this case higher fixed costs per ha over lower yields, but also reflecting smaller differences in costs for fertilisers and sprays between the two groups.



Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12		2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	24	18	21	25	29	26		37	54	65	58	59
Yield (t/ha)	2.2	1.6	3.2	2.7	2.1	2.8		2.0	4.6	3.6	3.0	3.9
Crop value (£/t)	185	313	260	233	269	300		193	139	139	207	210
Total costs (incl imputed) (£/t)	274	413	296	298	349	310		320	164	209	272	234
Total enterprise output (£/ha)	401	513	831	631	577	855		395	644	503	623	819
Total variable costs (£/ha)	80	89	131	128	114	115		151	206	226	215	244
Gross margin (£/ha)	320	425	700	503	464	740		244	438	277	408	574
Total fixed costs (£/ha)	443	522	679	564	489	600		369	441	398	438	496
Net margin - actual costs (£/ha)	-123	-97	21	-61	-26	140		-124	-3	-121	-30	78
Imputed costs (£/ha)	74	66	141	113	147	159		138	126	130	161	174
Total costs (incl imputed) (£/ha)	598	676	952	805	750	874		657	773	754	814	914
Net margin - all costs (£/ha)	-197	-163	-120	-173	-172	-19		-262	-129	-251	-191	-95
Other output/subsidies (£/ha)	319	358	322	354	320	299		254	276	313	282	295
Net margin incl. subsidies (£/ha)	122	195	201	181	148	281		-8	147	62	91	199

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

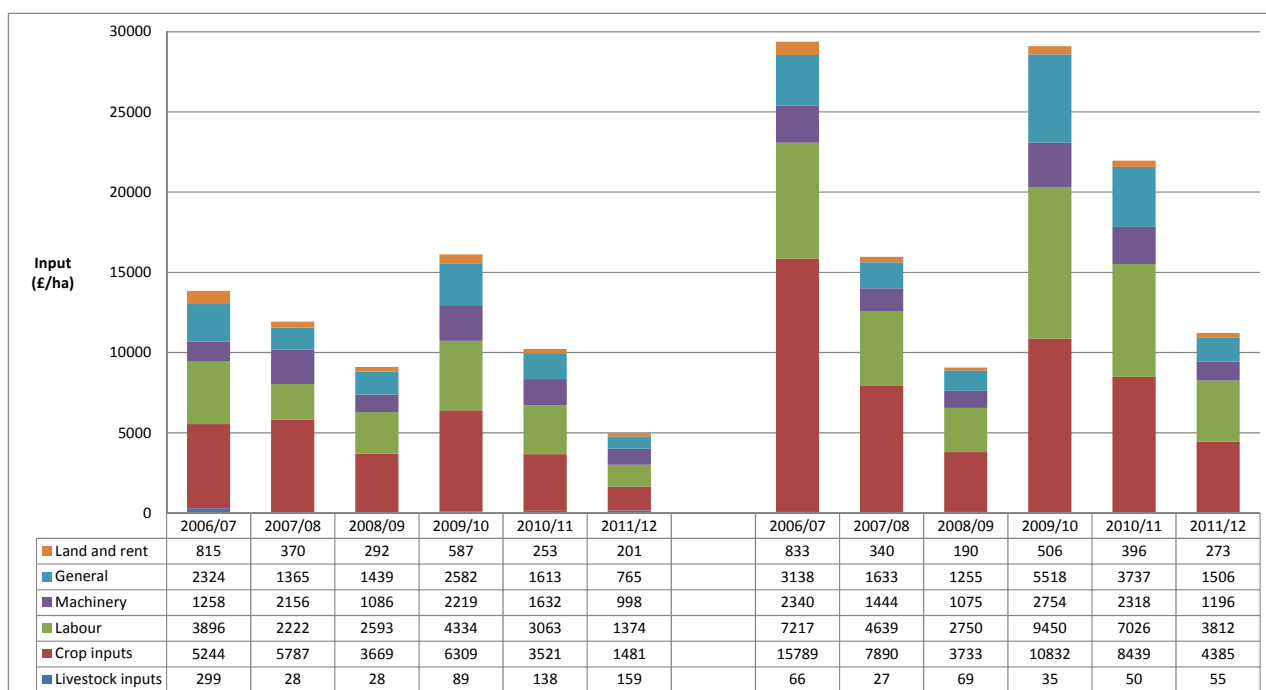
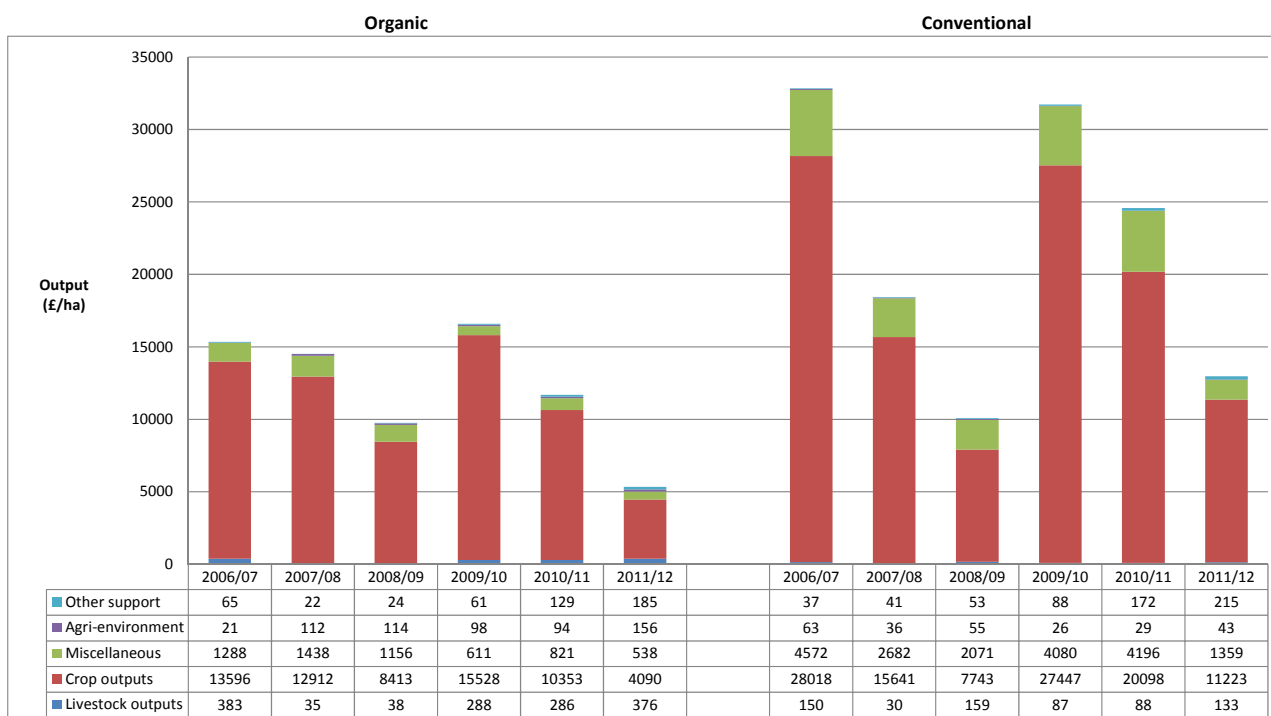
Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

For both groups, yields in 2007/08 were particularly low (and again to a lesser extent in 2010/11) reflecting poor production conditions and resulting in much higher cost of production per tonne than was achieved in subsequent years. In almost all years, the prices achieved were not high enough to cover costs of production for both organic and conventional crops. However, thanks to lower variable costs, organic field bean gross margins per ha were higher, but net margins for both organic and conventional are negative once fixed and imputed costs are included. When support payments are included the organic crop remains more profitable than conventional. When prices lower than costs of production are combined with the challenges of weed control and disease management in unpredictable climatic conditions, it is perhaps not surprising that producers are less keen to grow field beans and other grain legumes. Improving reliability and yield remains the challenge, including determining the best place in the rotation to achieve this.

4 HORTICULTURAL HOLDINGS

Due to the small sample sizes for this group, the results and comparisons between years and systems should be treated with particular caution. Changes in sample composition can have a large impact on the results when samples are small.

4.1 Whole farm outputs and outputs



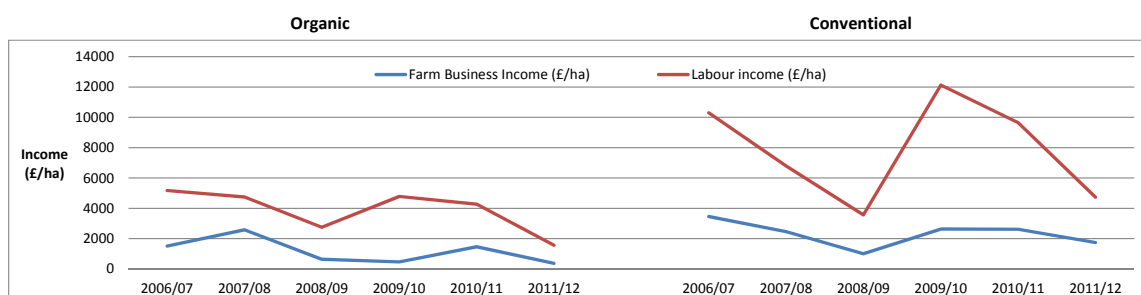
Looked at from a whole farm perspective, output per ha on the organic holdings was much lower than the non-organic sample, with crop output per ha on organic holdings about half the level of that found on comparable conventional holdings. While both groups show large year to year variation, the output differences are also affected by the higher proportion of grassland on the organic holdings (see below), needed to support fertility building during the rotation. Reflecting this, livestock output per ha was slightly higher



on the organic sample, but not a major part of the total output per ha. Compared with other farm types, agri-environmental and other support payments are relatively much less important as a component of total output, although agri-environmental receipts per ha were higher on the organic holdings.

Crop input costs per ha were also much lower on organic than conventional holdings. Combined with lower labour, machinery and other fixed costs, total input costs per ha on the organic holdings were a little over half the level of conventional. This suggests either different composition of businesses, with more high value, high intensity crops (e.g. protected cropping) on conventional, or that expenditure on organic samples is constrained by lower output levels. Lower output would result in less ability to pay for labour, while lower inputs generally could also result in reduced working capital and borrowing requirements.

4.2 Farm business and labour incomes and returns to capital



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	8	8	7	10	15	16	31	30	30	47	57	73
Average farm size (UAA)	22.8	19.0	20.3	21.4	23.3	45	13.9	18.3	19.3	18.0	20.2	32
Total outputs (£/ha)	15353	14520	9745	16588	11683	5344	32839	18430	10081	31729	24583	12973
Total inputs (£/ha)	13837	11929	9106	16120	10220	4978	29383	15972	9072	29097	21966	11227
Farm Business Income (£/ha)	1516	2592	639	468	1463	367	3456	2458	1009	2633	2617	1745
Farm Business income (£/farm)	34523	49289	12958	10006	34150	16652	48162	44934	19431	47510	52959	55409
FBI/Net worth (%)	12.0	8.1	2.1	1.4	4.3	1.6	11.3	8.1	3.7	8.7	9.6	7.1
Annual Labour Units (FTE/100ha)	29.0	21.6	22.2	31.8	22.3	10.6	53.1	37.7	24.4	61.5	46.4	22.2
Annual Labour Units (FTE/farm)	6.6	4.1	4.5	6.8	5.2	4.8	7.4	6.9	4.7	11.1	9.4	7.1
Labour income (£/ALU)	17854	22024	12444	15081	19214	14831	19384	17990	14655	19727	20785	21317
Labour income (£/ha)	5175	4748	2761	4791	4279	1567	10292	6790	3576	12134	9653	4734

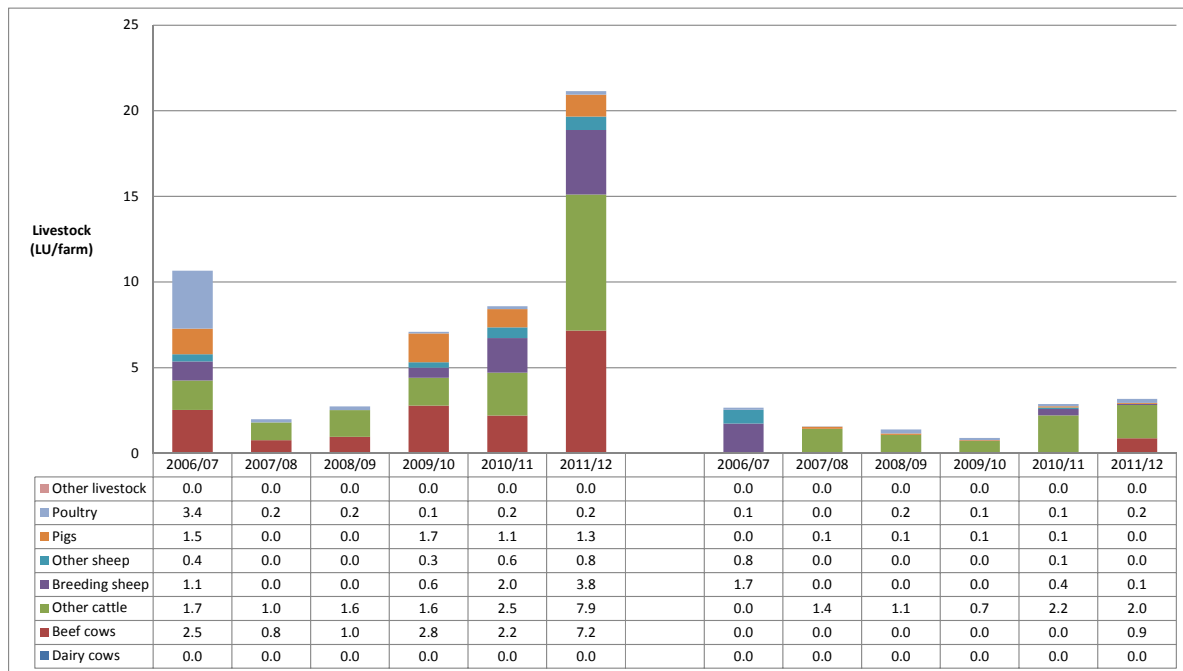
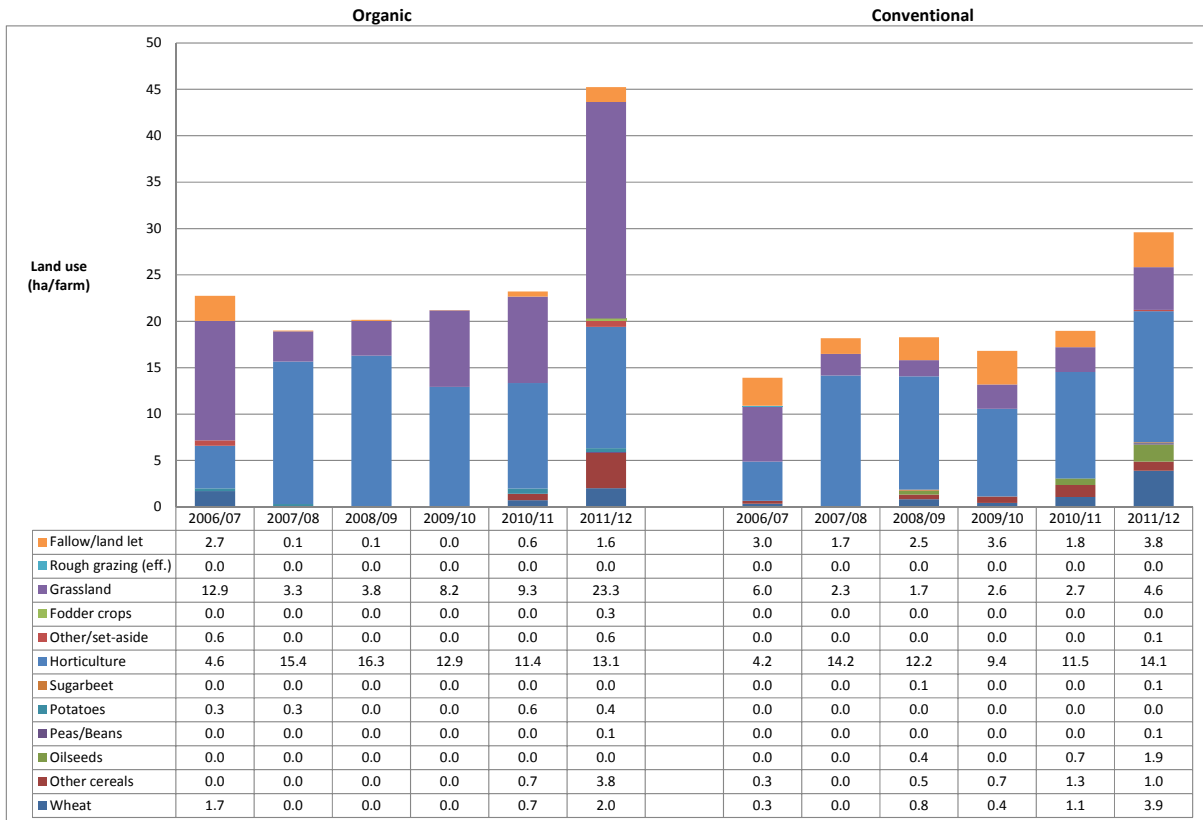
The lower costs per ha were not sufficient to compensate for lower output per ha on the organic holdings, with the result that farm business income (FBI) per ha was much lower on the organic than the conventional holdings. Returns to capital were correspondingly lower, although the differences in labour incomes were not so great due to the lower number of annual labour units employed on the organic holdings.

4.3 Land use, livestock numbers and stocking rates

The organic holdings show a higher proportion of land down to grass, although there is large variation between years, perhaps reflecting changes in sample composition. However, while the absolute area of horticultural crops is similar for the two groups, the total area of land on the organic sample is higher than non-organic. For the conventional sample, a relatively high proportion of land is classified as fallow or let – it may be that this is land let to packers for growing certain specialist vegetable crops, the returns to which (other than rent) would not be included in the financial data for the conventional sample.

Reflecting the higher proportion of grassland and the larger farm size of the organic holdings, many more livestock are kept on the organic holdings, although total numbers are low compared with other farm types. Stocking rates per forage ha are similar for both farm types.

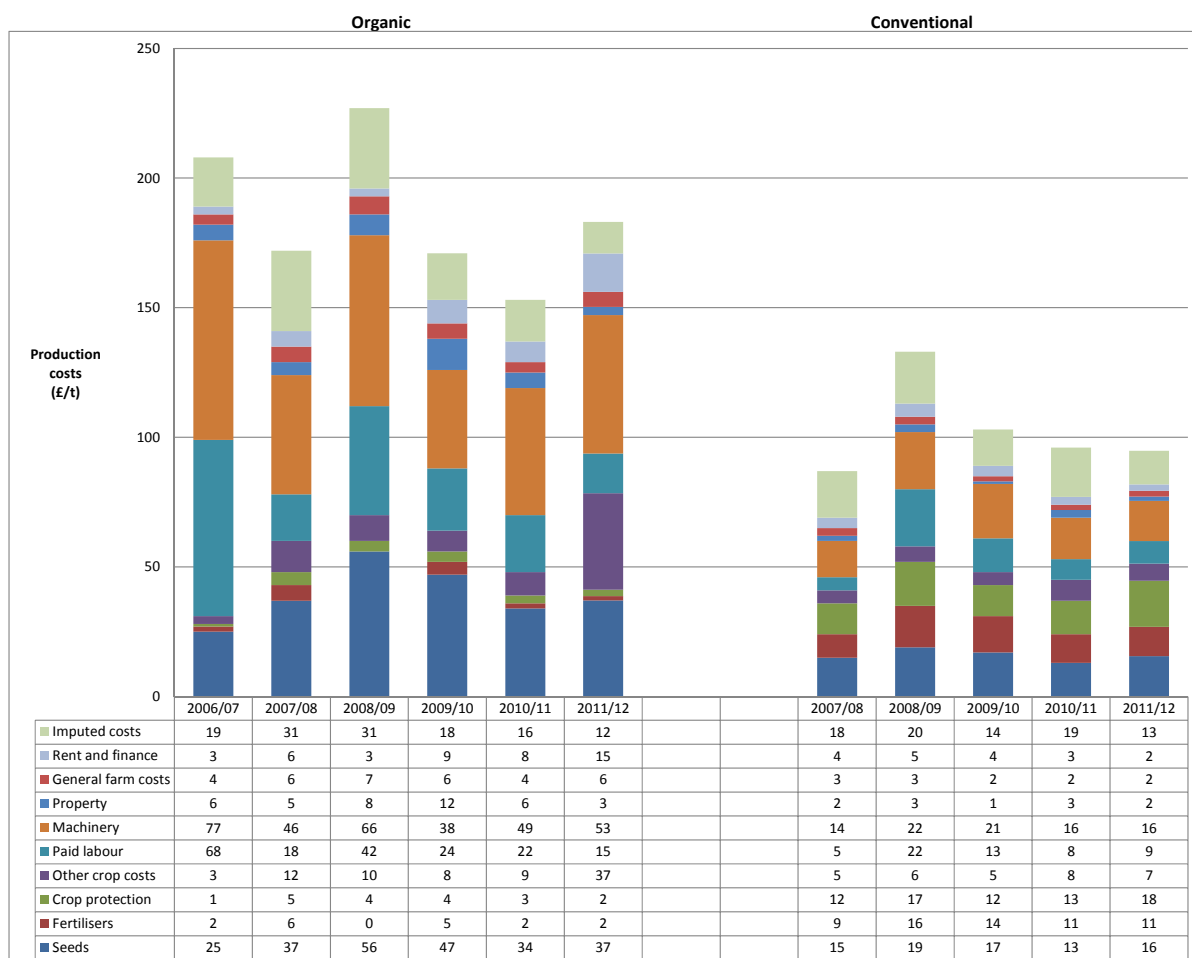
Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



Stocking rates

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	10.7	2.0	2.7	7.1	8.6	21.1	2.7	1.6	1.4	0.9	2.9	3.2
Stocking rate (LU/eff. ha)	0.5	0.1	0.1	0.3	0.4	0.5	0.2	0.1	0.1	0.0	0.1	0.1
Grazing LU/forage eff. ha	0.8	0.6	0.7	0.9	0.9	0.9	0.4	0.7	0.8	0.3	1.0	0.7

4.4 Potato enterprise performance



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12		2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	8	7	6	8	6	6		16	17	19	22	23
Yield (t/ha)	29.3	17	16.8	26.6	31	29		35	34	41	42	44
Crop value (£/t)	289	259	289	226	239	242		118	155	99	132	96
Total costs (incl imputed) (£/t)	208	172	227	171	153	183		87	133	103	96	95
Total enterprise output (£/ha)	8474	4449	4849	6012	7336	6928		4098	5224	4040	5601	4205
Total variable costs (£/ha)	938	1023	1169	1695	1450	2250		1379	1961	1986	1895	2248
Gross margin (£/ha)	7537	3427	3680	4316	5886	4678		2719	3262	2054	3706	1957
Total fixed costs (£/ha)	4613	1345	2098	2375	2772	2652		952	1866	1683	1338	1340
Net margin - actual costs (£/ha)	2924	2082	1582	1941	3114	2026		1767	1397	371	2367	616
Imputed costs (£/ha)	555	534	516	483	487	349		627	689	592	822	567
Total costs (incl imputed) (£/ha)	6106	2902	3783	4553	4709	5251		2958	4516	4260	4056	4155
Net margin - all costs (£/ha)	2368	1548	1066	1459	2627	1677		1141	707	-220	1545	50
Other output/subsidies (£/ha)	286	328	343	364	319	245		292	308	326	334	335
Net margin incl. subsidies (£/ha)	2654	1876	1409	1823	2946	1921		1433	1015	106	1880	385

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

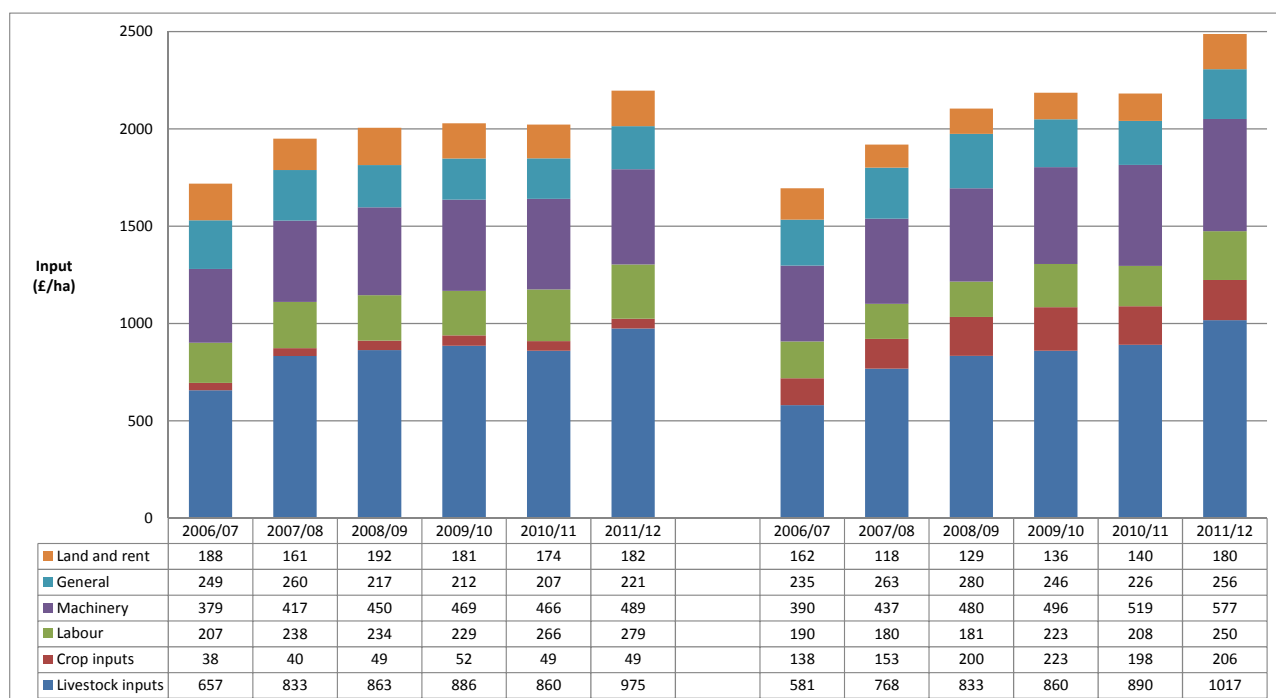
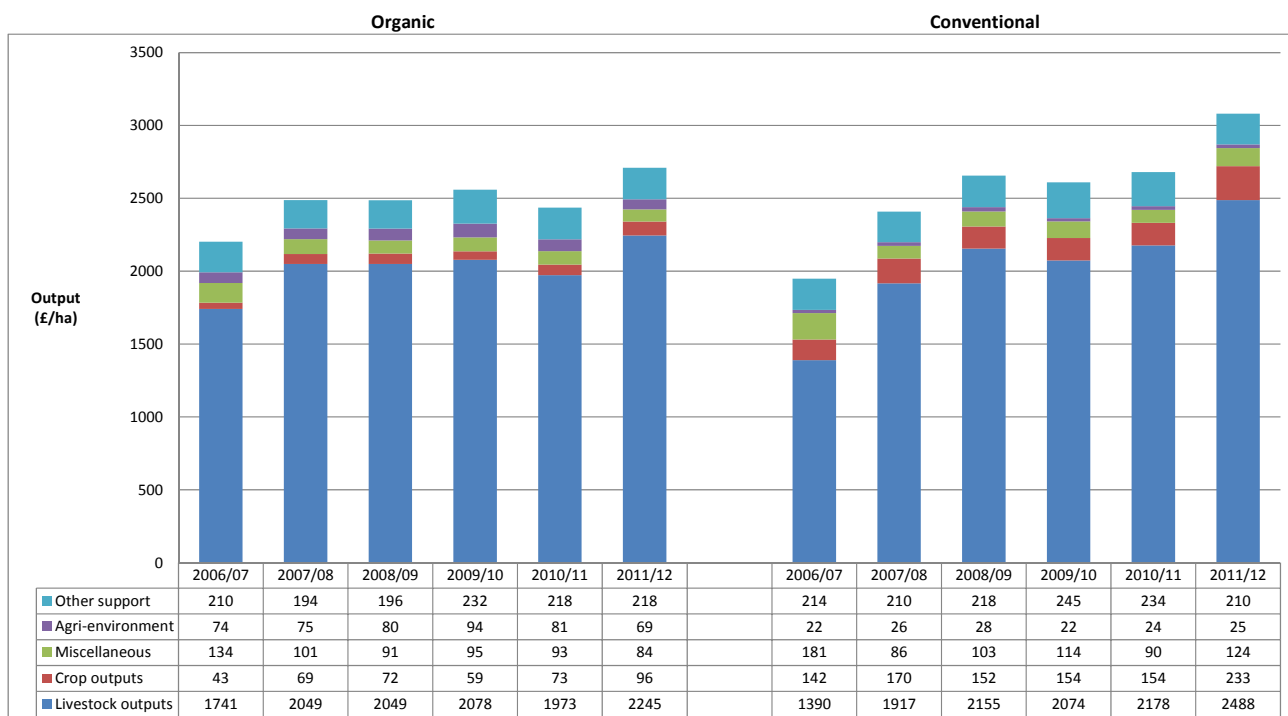
Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other related inputs include LFA and agri-environment (including organic farming), By products and forage, Single Payment Scheme

Although potatoes are often seen as an arable crop, there is insufficient data available from the Farm Business Survey to present results for other horticultural crops. Yields for organic potatoes were typically 60% of those on comparable conventional farms, resulting in higher total production costs per tonne, mainly due to higher fixed costs per ha spread over the lower yields. The higher fixed costs per ha may be a result of smaller enterprises and the dependence that organic farms have on their own machinery rather than on producer groups or contractors. Variable input costs per ha were typically lower on the organic crops, and similar to conventional on a per tonne basis, despite the lower yields. With organic prices double those of conventional, gross and net margins per ha were higher for the organic crops.

5 LOWLAND DAIRY FARMS

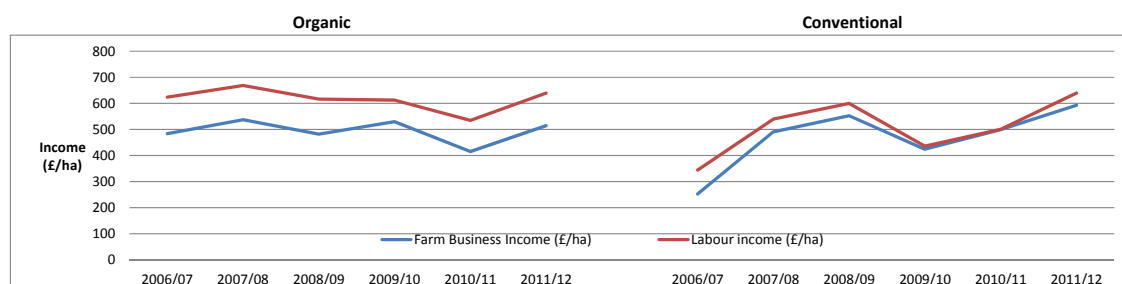
5.1 Whole farm outputs and inputs



Total dairy farm outputs were typically slightly lower on the organic samples, despite higher agri-environment payments. This reflected similar livestock and other outputs per ha but lower crop outputs per ha on the organic farms, indicating that organic dairy producers were prioritizing forage area to maintain livestock numbers over producing homegrown concentrates (see below).

Total input costs per ha were also lower on the organic farms, due to the much lower crop input costs reflecting reduced use of fertilisers. Livestock inputs per ha were more similar, despite higher organic feed costs. Fixed costs including labour per ha were slightly lower on the organic farms.

5.2 Farm business and labour incomes and returns to capital



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	29	33	44	44	48	45	184	219	301	292	249	265
Average farm size (UAA)	127	125	137	143	154	157	116	114	116	125	134	142
Total outputs (£/ha)	2202	2488	2487	2559	2437	2711	1948	2409	2656	2609	2680	3080
Total inputs (£/ha)	1718	1950	2005	2029	2022	2196	1695	1919	2104	2185	2181	2487
Farm Business Income (£/ha)	484	538	482	530	415	515	253	491	553	424	499	593
Farm Business income (£/farm)	61679	67433	65994	75897	63723	81000	29407	55969	64040	52871	66687	84374
FBI/Net worth (%)	9.6	9.1	9.4	8.7	6.4	7.0	4.5	7.6	7.2	4.6	6.3	7.1
Annual Labour Units (FTE/100ha)	2.4	2.6	2.4	2.3	2.2	2.3	2.8	2.8	2.8	2.8	2.5	2.6
Annual Labour Units (FTE/farm)	3.1	3.2	3.3	3.3	3.4	3.6	3.2	3.2	3.2	3.5	3.3	3.7
Labour income (£/ALU)	25639	26220	25588	26576	24158	28296	12501	19239	21742	15534	20268	24687
Labour income (£/ha)	624	669	617	612	535	640	345	540	600	436	501	640

Over the whole period, farm business incomes per ha were slightly higher on the organic farms when compared with similar conventional dairy farms. However, improved conventional performance in the last couple of years left organic production underperforming relatively. This is in part due to organic milk prices not keeping up with increases in conventional prices – while a 5-6ppl price premium may be sufficient to maintain relative incomes, premiums below 5ppl (4.0ppl in 2011/12) are insufficient to achieve this. With similar labour use per farm (slightly lower per 100 ha) on organic farms, labour incomes and returns to capital were higher on organic than on conventional for most of the period.

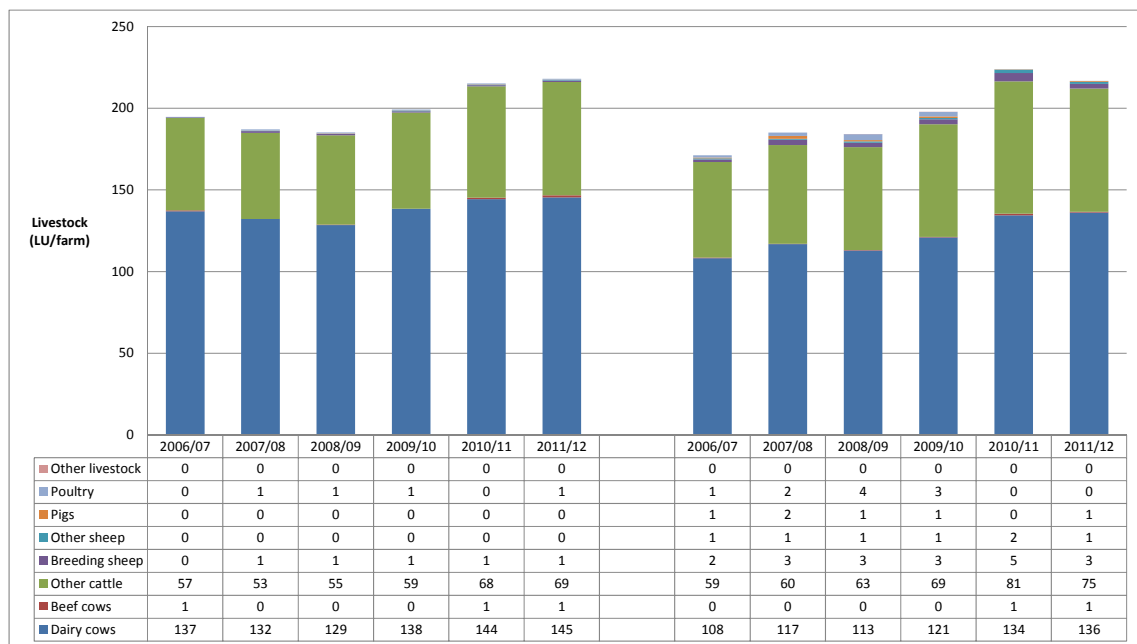
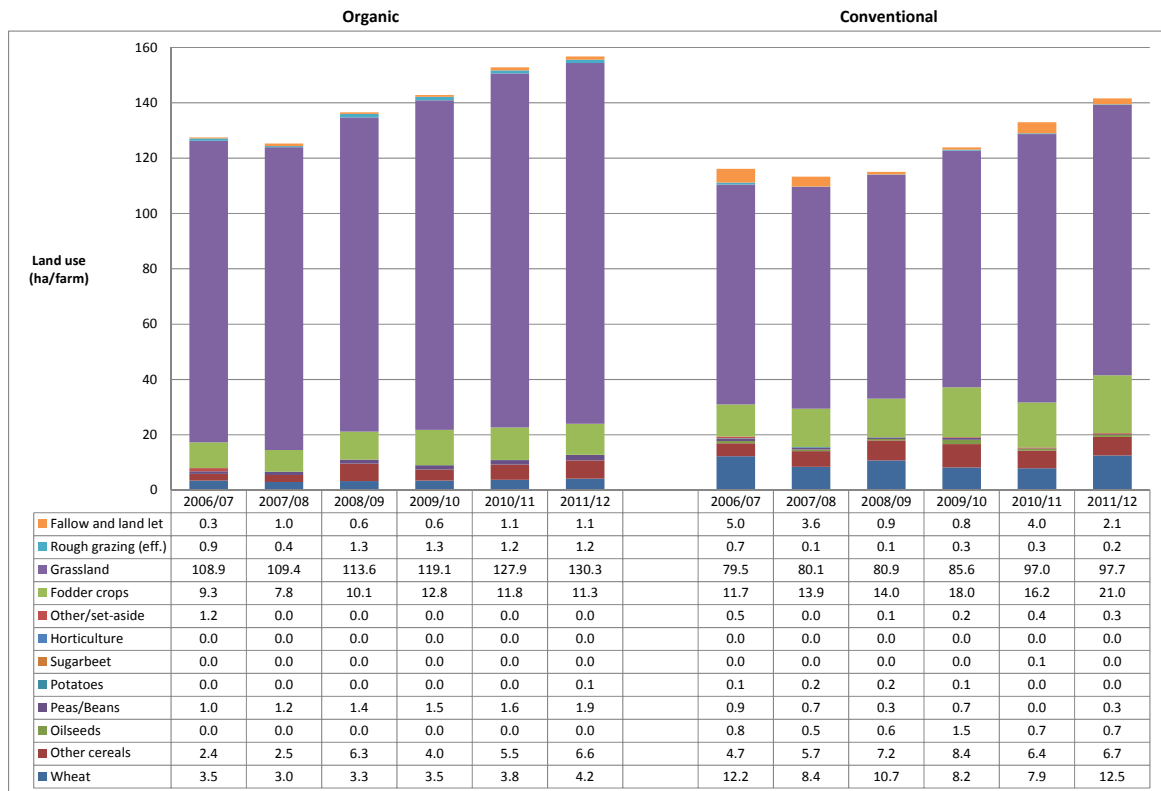
5.3 Land use, livestock numbers and stocking rates

The organic dairy farms in the samples are slightly larger than conventional, with more livestock kept and a higher proportion of the land area down to forage. This reflects in part the need to maintain cow numbers despite 20% lower stocking rates (see below) so that buildings and other farm infrastructure as well as quota holdings can be fully utilized. It may also reflect a preference for high forage, low concentrate systems, with such organic concentrates as are used bought in rather than produced on the farm. However, where crops are produced, cereals other than wheat and grain legumes are more prevalent on the organic farms. Organic farms may be using some of the cereals as a whole crop while conventional crops will include forage maize.

The organic dairy farms have more dairy cows and fewer other cattle than similar conventional farms. This may reflect higher longevity and lower replacement rates on the organic farms, with some evidence from other sources to support this. It may also reflect reduced production of dairy beef stores/finished animals because of the organic market preference for traditional beef breeds.

Stocking rates per forage ha on the organic farms are typically 20% lower than conventional, which contrasts with results for other farm types where stocking rates are more similar. This will in part reflect the higher use of nitrogen fertilisers on conventional dairy farms compared with other conventional livestock farms. However, stocking rates are also influenced by the reliance on purchased concentrates, which is typically higher on conventional than on organic dairy farms.

Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



Stocking rates

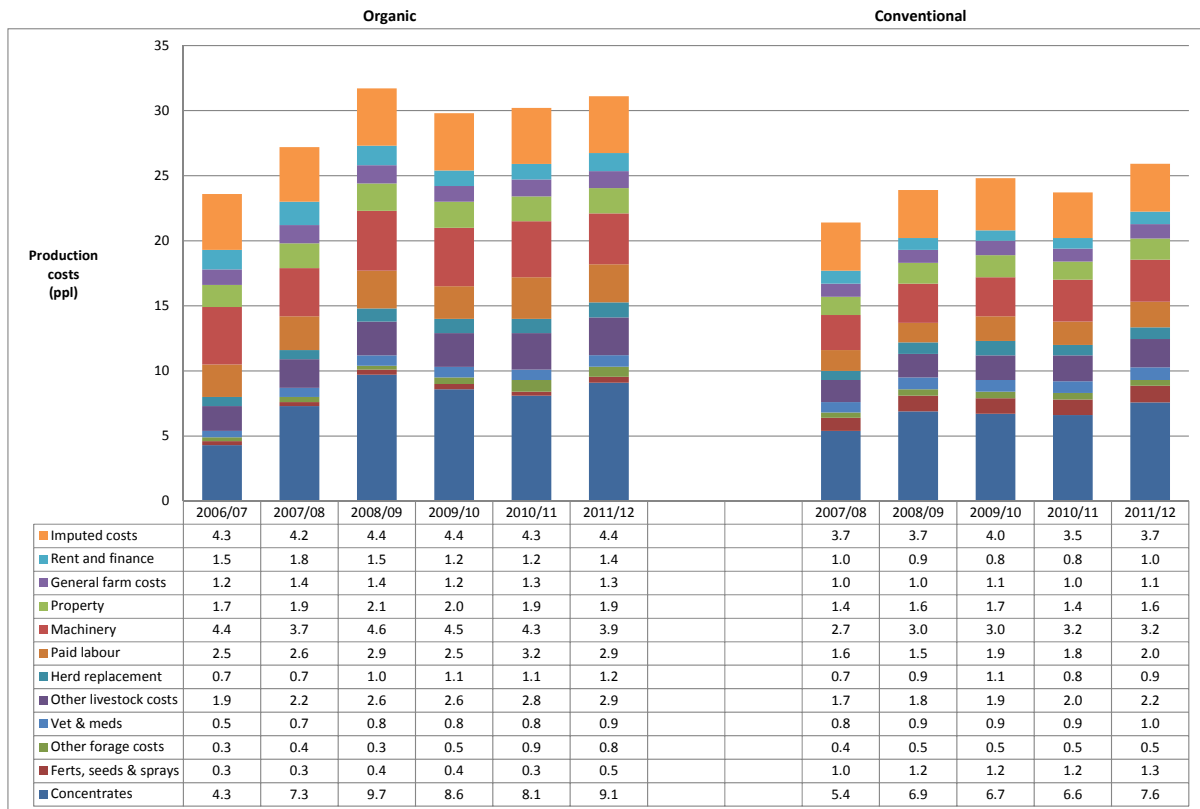
	Organic						Conventional					
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	195	187	185	199	215	218	171	185	184	198	224	217
Stocking rate (LU/eff. ha)	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.7	1.5
Grazing LU/forage eff. ha	1.5	1.5	1.4	1.4	1.4	1.4	1.8	1.9	1.8	1.8	1.9	1.7

5.4 Dairy enterprise performance

As with other enterprises, total production costs per litre are higher for organic milk production due to spreading similar or higher fixed costs per hectare over a smaller quantity of milk produced (35% lower milk output per ha resulting from a combination of 15% lower yields per cow and 20% lower stocking rates). Concentrate costs per litre are higher on the organic farms, despite lower quantities fed, due to the higher costs of organic concentrates, whether homegrown or purchased. This is offset to a small extent by lower fertilizer costs, with other variable costs similar between organic and conventional groups.



Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12



Dairy enterprise margins

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12		2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	44	38	49	52	51	45		126	171	182	136	145
Milk yield (l/cow)	5442	5887	5753	6153	6264	6315		7054	6953	7151	7538	7397
Stocking rate (cows/ha)	1.5	1.5	1.4	1.4	1.4	1.4		1.9	1.8	1.8	1.9	1.8
Milk yield (l/ha)	8184	8845	8115	8601	8874	8840		13175	12777	12994	14230	13436
Milk value (ppl)	25.4	29.4	33.4	29.0	30.0	31.8		21.3	25.7	24.0	25.0	27.9
Total costs (incl imputed) (ppl)	23.6	27.2	31.7	29.8	30.2	31.1		21.4	23.9	24.8	23.7	25.9
Total enterprise output (£/cow)	1343	1665	1847	1780	1819	1919		1479	1741	1659	1780	1940
Total variable costs (£/cow)	530	643	798	796	807	891		649	777	800	845	920
Gross margin (£/cow)	813	1022	1049	984	1012	1028		830	964	859	935	1019
Total fixed costs (£/cow)	589	674	713	701	749	724		548	555	606	622	657
Net margin - actual costs (£/cow)	223	348	336	282	263	304		282	410	253	313	362
Imputed costs (£/cow)	320	284	287	310	296	299		308	327	340	325	330
Total costs (incl imputed) (£/cow)	1439	1601	1799	1808	1852	1914		1505	1657	1746	1791	1907
Net margin - all costs (£/cow)	-97	64	48	-28	-33	5		-26	83	-87	-11	32
Other output/subsidies (£/cow)	177	197	220	257	235	222		142	151	180	167	154
Net margin - incl subsidies (£/cow)	80	261	268	229	202	227		116	234	93	155	186
Net margin - incl subsidies (£/ha)	120	392	378	320	286	317		217	430	169	293	338

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

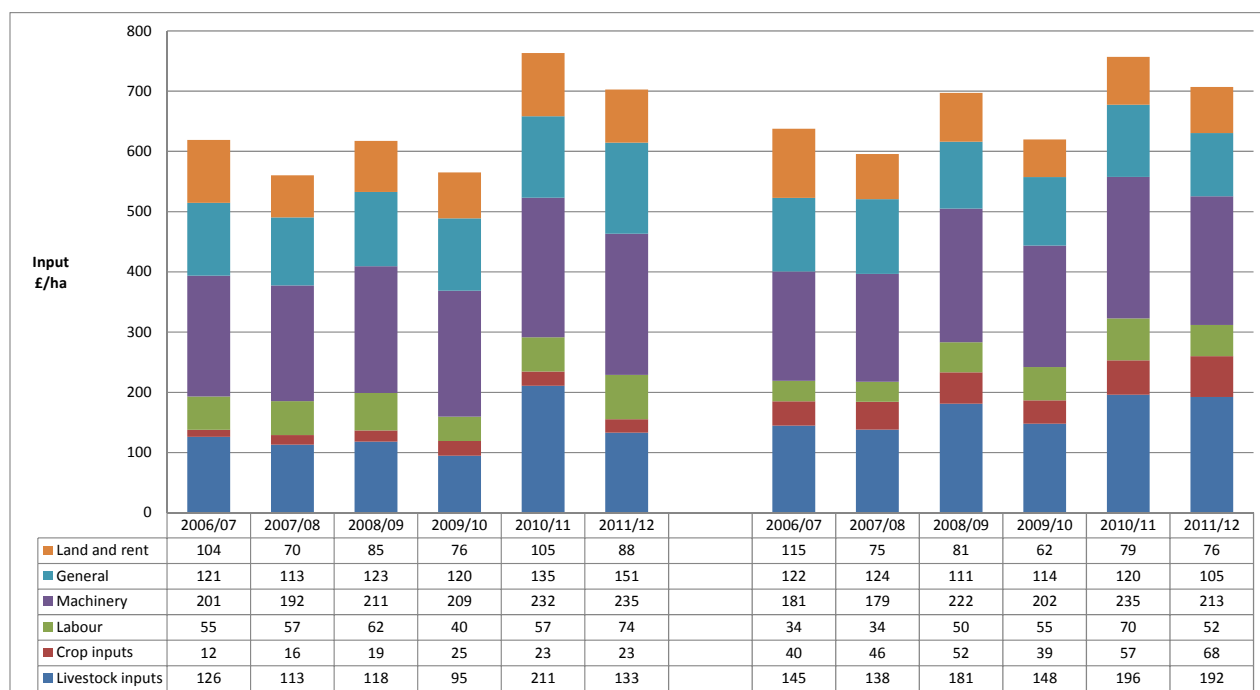
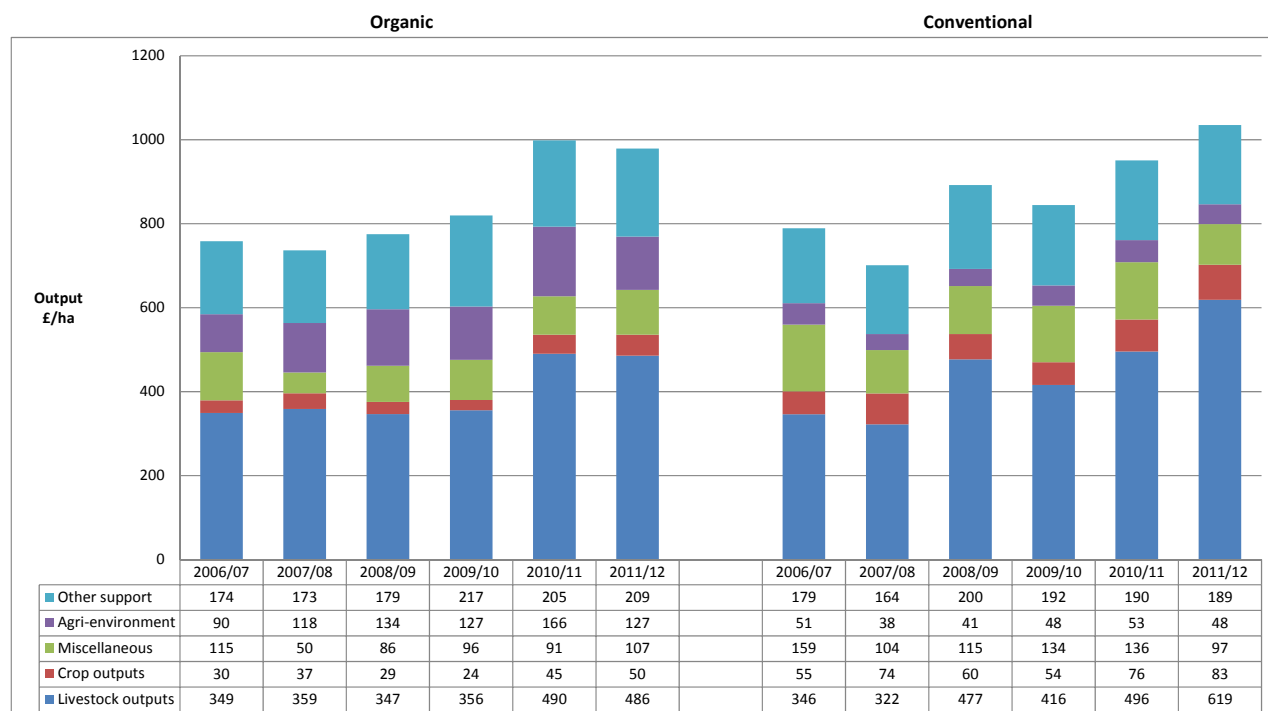
For the organic farms, the price received per litre barely covers the costs of production, at least in recent years, whereas the price received by conventional producers has increased to give 2ppl over the costs of production in 2011/12. Costs of production per litre are typically 5-6ppl higher on the organic farms, but in recent years the price premium has fallen to 4-5ppl. Cost of production can be influenced by the dairy system chosen and in particular the calving pattern. Increased emphasis on high-forage, low concentrate systems and reduced reliance on forage maize compared with conventional systems may also help, and may protect organic dairy producers from variability in organic concentrate prices.

Despite the lower yields and stocking rates, net margins per ha including all costs and support payments have been similar or higher on the organic sample in some years, with greater year to year consistency in the results.



6 LOWLAND CATTLE AND SHEEP FARMS

6.1 Whole farm outputs and inputs

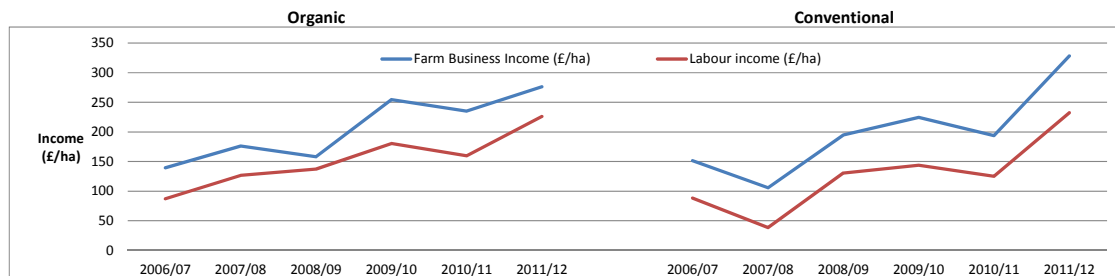


For lowland cattle and sheep farms, livestock outputs per ha were similar in some years, but in others, particularly in 2011/12, were higher on the non-organic farms. Non-organic farms also had higher levels of crop and miscellaneous outputs, while the organic farms had higher levels of agri-environmental support. Both groups showed increasing output over the period, in part a result of higher conventional red meat prices underpinning organic prices, even though premiums fell to very low levels especially for lamb. In recent years, premiums for organic beef have strengthened due to a shortage of supply, as high proportions of the lamb and beef produced on organic farms have been sold through conventional channels.

In most years, livestock and crop input costs per ha were lower on the organic farms, while fixed costs were slightly higher on the organic farms. Total inputs per ha were similar for both groups, with a slight ad-

vantage to the organic farms in some years. The sharp increase in livestock costs per ha on the organic farms in 2010/11, and to a lesser extent on the conventional farms, was due to a change in sample composition, with poultry enterprises entering the samples, as the identical sample comparisons for 2009/10 and 2010/11 showed no change in costs. In 2011/12, the poultry enterprise effect was substantially reduced.

6.2 Farm business and labour incomes and returns to capital



Sample size (n)	30	31	33	31	38	40	210	205	223	203	215	197
Average farm size (UAA)	88	107	113	112	123	134	83	95	102	99	104	115
Total outputs (£/ha)	758	736	775	820	998	979	789	701	892	844	951	1035
Total inputs (£/ha)	619	560	617	565	763	702	638	595	697	620	757	707
Farm Business Income (£/ha)	139	176	158	255	235	276	152	106	195	225	194	328
Farm Business income (£/farm)	12287	18818	17871	28554	28942	37124	12509	10032	19864	22233	20113	37655
FBI/Net worth (%)	1.7	2.5	2.2	2.8	2.5	2.9	2.9	1.9	3.2	3.0	2.4	4.0
Annual Labour Units (FTE/100ha)	1.6	1.4	1.3	1.2	1.3	1.3	1.6	1.5	1.5	1.4	1.5	1.3
Annual Labour Units (FTE/farm)	1.4	1.5	1.5	1.4	1.6	1.7	1.3	1.4	1.5	1.4	1.6	1.5
Labour income (£/ALU)	5487	9022	10349	14465	12299	17445	5619	2603	8882	10154	8117	18290
Labour income (£/ha)	87	127	137	181	160	226	88	38	131	144	125	232

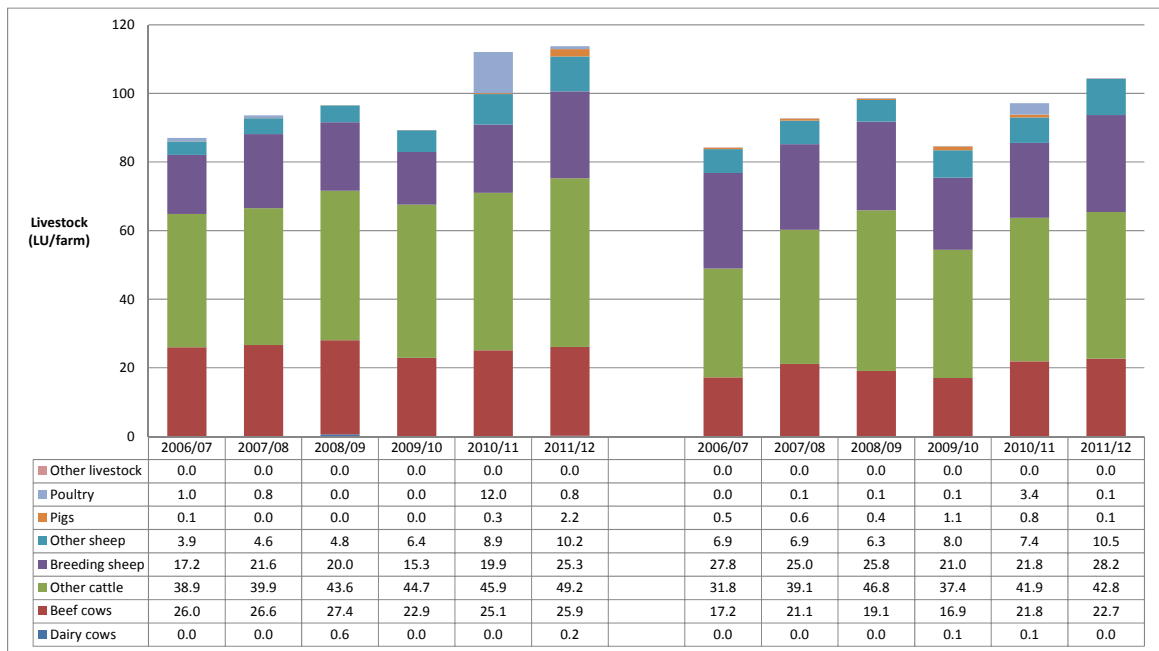
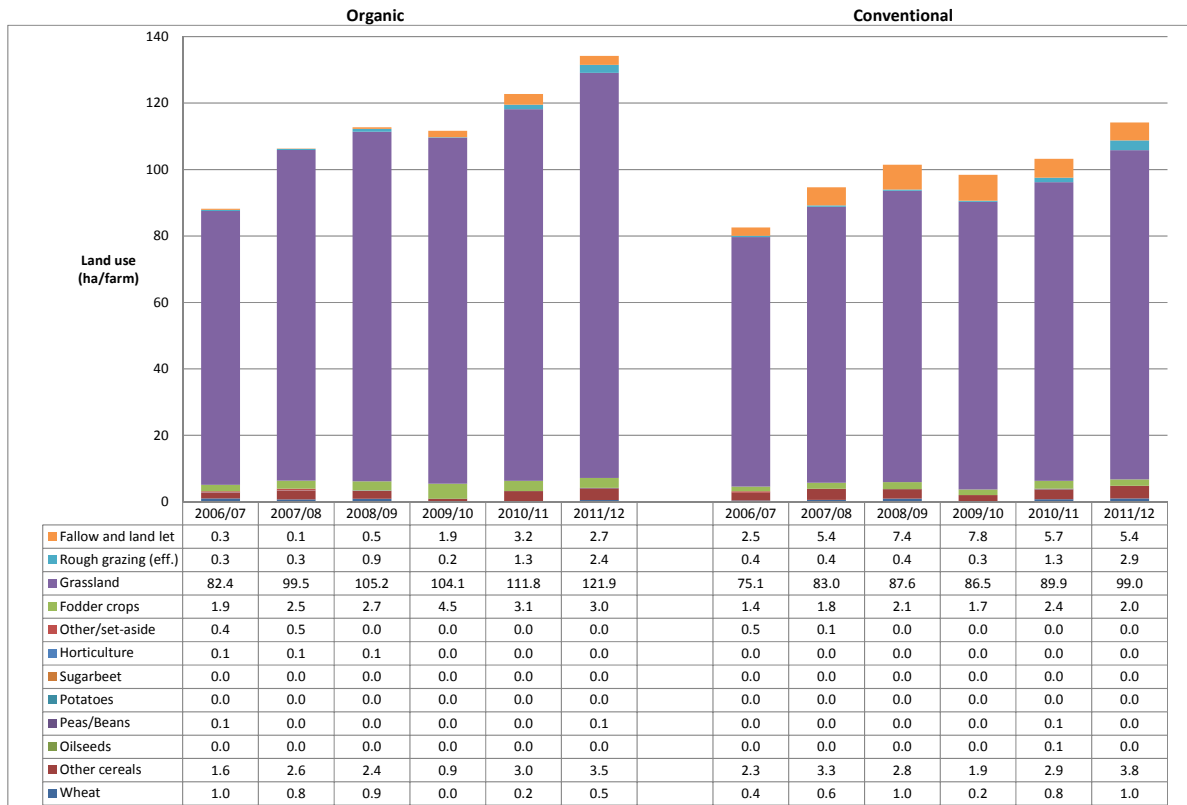
The net result of the output and input trends was similar or higher farm business income per ha on the organic farms, except in 2011/12 when the conventional sample recorded a substantial improvement, ahead of that seen on the organic farms. Both groups saw a steady improvement in FBI per ha over the period, but FBI and labour income values per farm were low compared with other farm types, as were returns to capital invested. Labour use per 100 ha was lower on the organic farms, in part due to lower stocking rates - labour use per farm values were very similar, but the organic farms were larger than the comparable non-organic ones.

6.3 Land use, livestock numbers and stocking rates

Land use patterns were very similar for both organic and non-organic farms in most years with grassland dominating and cropping accounting for around 5% of the land area. A higher proportion of land on the non-organic farms was recorded as fallow or land let.

Although stocking rates were slightly lower on the organic farms (typically 10% or less), the larger farm size of the organic sample meant that more livestock were kept per farm. Suckler cows and other cattle were the most significant part of this, with sheep less prevalent on the organic sample. A very small number on average of other livestock were kept, with the exception of a brief appearance of poultry in 2010/11 due to a change in sample composition that year.

Long term trends in financial performance of organic farms (E&W) 2006/07–2011/12

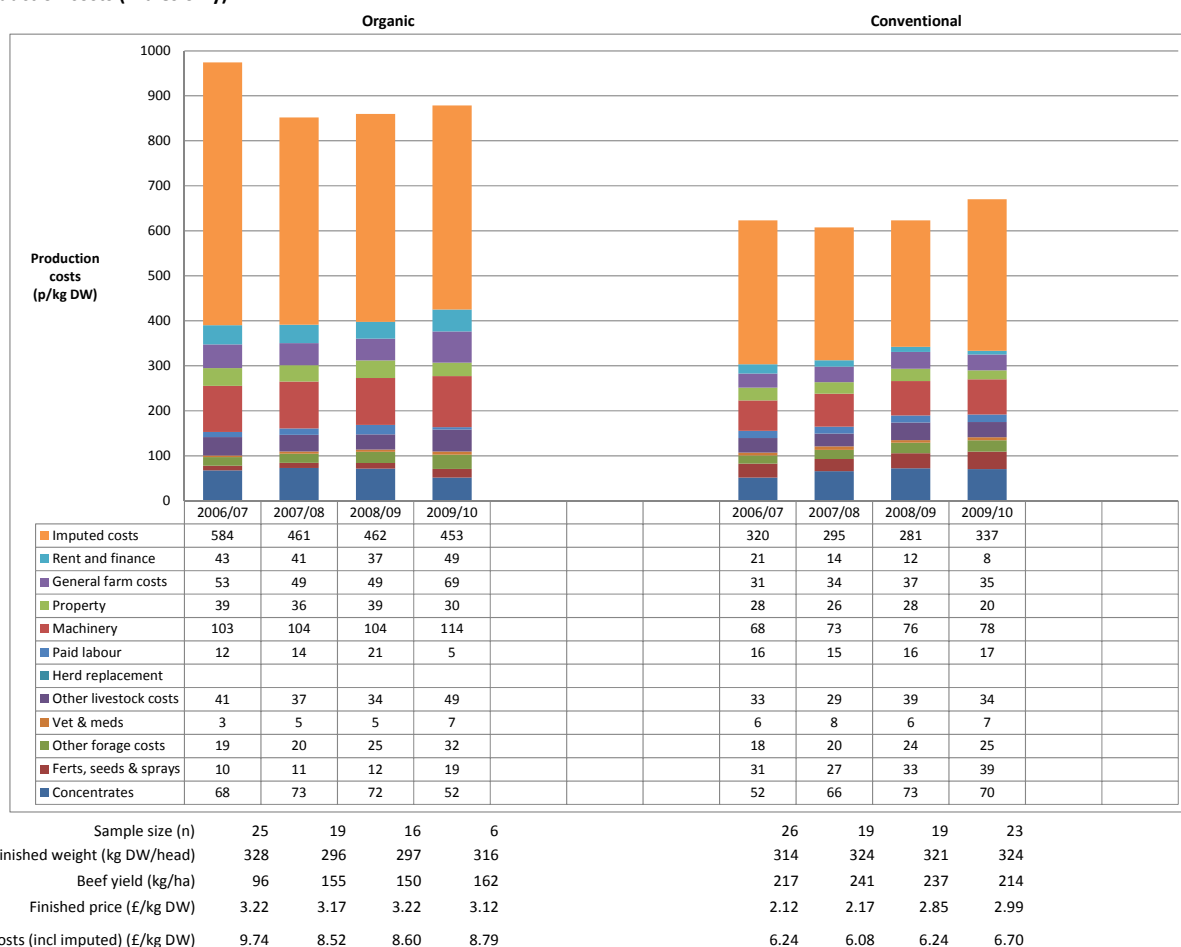


Stocking rates

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	87	94	97	89	112	114	84	93	99	85	97	104
Stocking rate (LU/eff. ha)	1.0	0.9	0.9	0.8	0.9	0.8	1.0	1.0	1.0	0.9	0.9	0.9
Grazing LU/forage eff. ha	1.0	0.9	0.9	0.8	0.9	0.9	1.0	1.0	1.1	0.9	1.0	1.0

6.4 Lowland finishing beef enterprise performance

Beef production costs (Wales only)



Lowland finishing beef margins (England and Wales)

(£/head)	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	25	35	40	37	43	39	58	57	62	67	62
Total enterprise output	712	793	815	896	811	1089	781	1031	1244	1076	1235
Total variable costs	279	268	302	350	409	414	413	509	681	668	671
Gross margin	433	525	513	546	402	675	368	522	563	408	564
Total fixed costs	837	892	905	931	895	1116	682	812	821	824	749
Net margin - actual costs	-404	-368	-392	-385	-493	-441	-314	-290	-257	-416	-185
Imputed costs	480	531	542	549	464	614	561	513	610	570	573
Total costs (incl imputed)	1596	1691	1749	1830	1768	2144	1656	1834	2112	2062	1993
Net margin - all costs	-884	-899	-933	-934	-957	-1055	-875	-803	-867	-987	-758
Other output/subsidies	604	638	717	912	779	804	523	621	668	594	574
Net margin - incl subsidies	-280	-261	-216	-22	-178	-251	-352	-182	-199	-393	-186

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

In the case of the beef and sheep enterprises presented here and below, the production cost data are only available for Welsh farms where it was possible to record the weight of livestock sold. This data was not recorded on English farms and therefore the analysis cannot be extended to England and Wales. Unfortunately, from 2010/11, the number of farms in Wales for which the data was recorded fell to numbers that are too low to report.

As with other enterprises, production costs per kg produced were higher on the organic farms, even though costs per ha were more similar, due to the lower stocking rates and lower quantities of meat produced per ha. Also noteworthy for this sample is the very high level of imputed costs – while this may be a reflection of the traditional family farm nature of farms in the Welsh sample, it may also be a reflection of cash constraints forcing producers to rely more heavily on their own resources. Particularly when the farmers' own



resources utilized are taken into account, the costs of production are much higher than the price received, for both organic and non-organic farms, even when support payments are included.

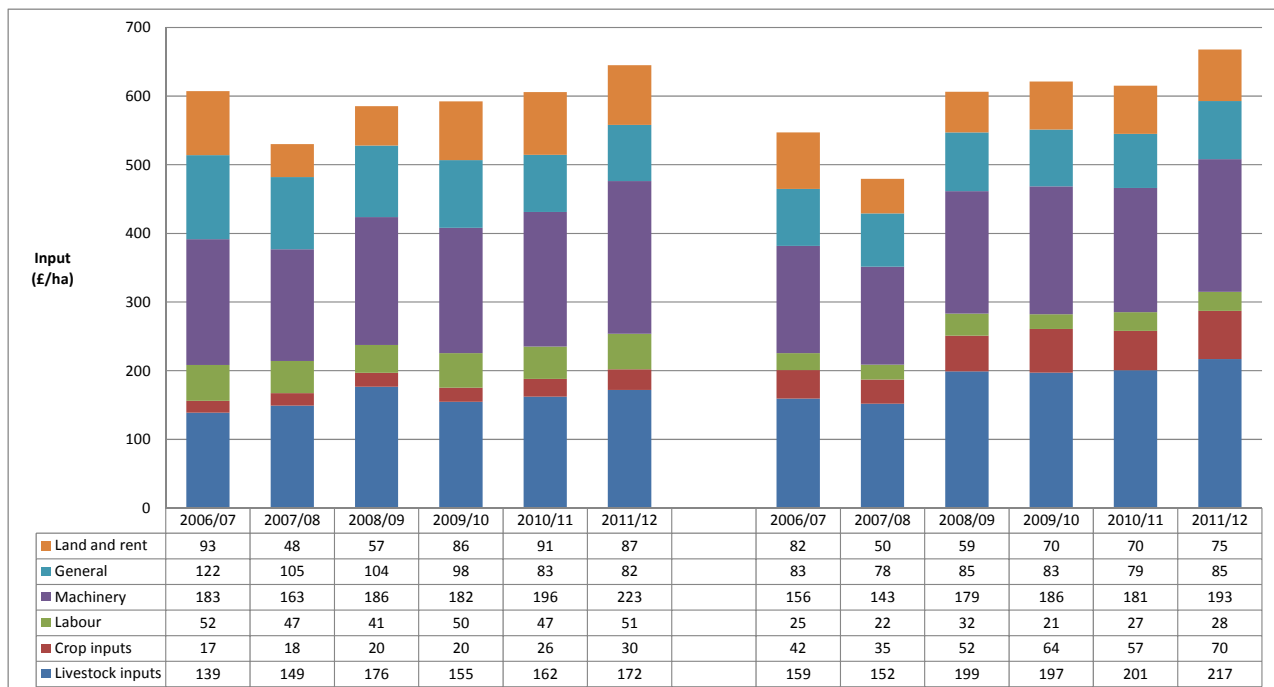
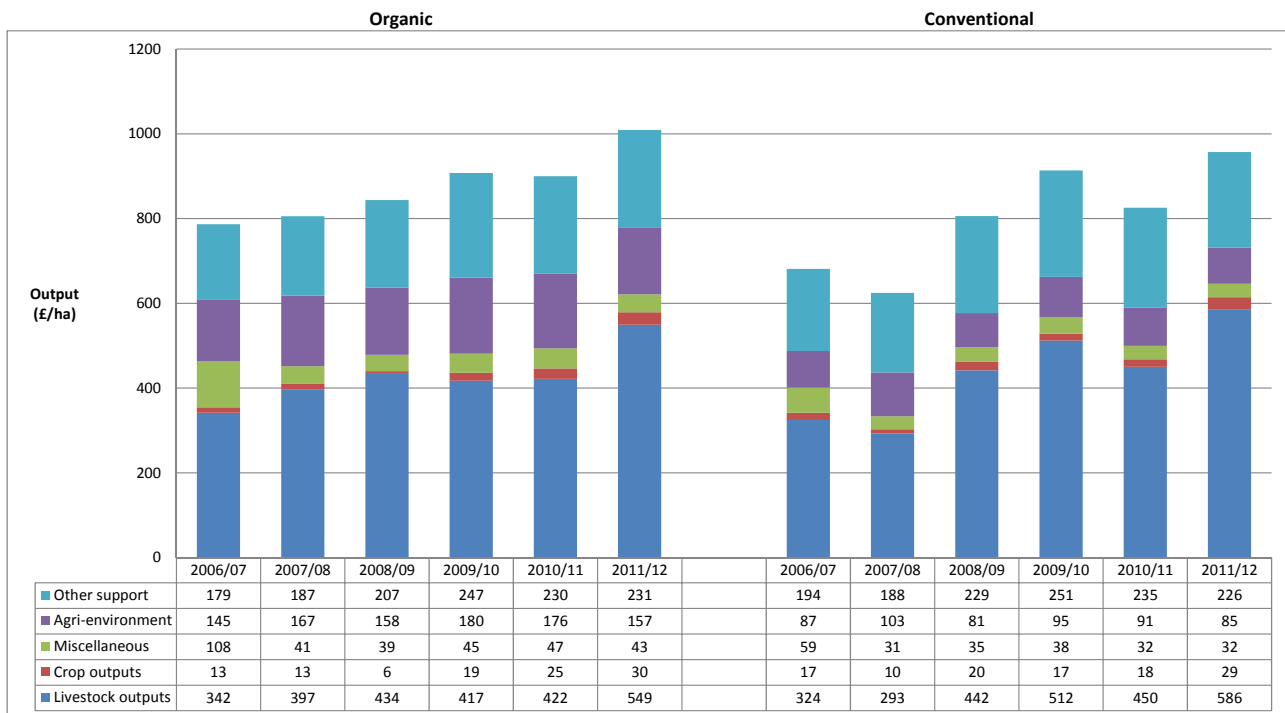
In terms of margins per animal, using England and Wales data, enterprise outputs are typically higher on the non-organic farms, while variable costs (and in particular forage costs) are lower on the organic farms, resulting in similar or higher gross margins per head for the organic sample. The difference in enterprise output is in part due to the greater prevalence of suckler cows and their replacements on the organic farms, with higher cattle sales values on the conventional holdings due to more cattle purchased and finished on these farms. The lack of a market for organic calves from the dairy herd, and the costs associated with rearing organic beef calves for finishing contribute to the increased reliance on suckler cows on organic farms, but producers need to be aware of the cost implication of keeping suckler cows on a small scale.

Fixed costs per head were typically higher on the organic farms, leading to poorer net margins per head. The imputed costs of the farmers' own resources are also relatively high on the England and Wales sample, but not as much as for the Welsh production cost data. On a per head basis, the imputed costs were typically slightly lower on the organic sample. Net margins including imputed costs were seriously negative for both groups, with most but not all of the deficit covered by support payments, illustrating both the failure of prices paid for beef to cover the full costs of production and the extent to which cattle and sheep farms are reliant on support payments to survive.



7 LESS FAVOURED AREA CATTLE AND SHEEP FARMS

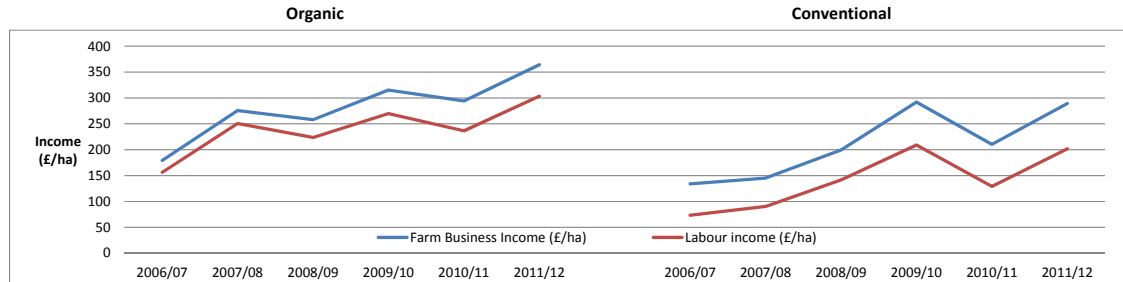
7.1 Whole farm outputs and inputs



Crop, livestock and miscellaneous outputs per ha were similar on both organic and non-organic LFA cattle and sheep holdings, but livestock output has increased more on the conventional holdings in last few years, reflecting higher conventional prices and lower organic premiums. Support payments represent a high proportion of total output for both types, with agri-environmental payments higher on the organic farms.

Crop and livestock input costs per ha were both lower on the organic sample, while other fixed costs including labour were similar or slightly higher. Total inputs per ha were typically lower on the organic farms.

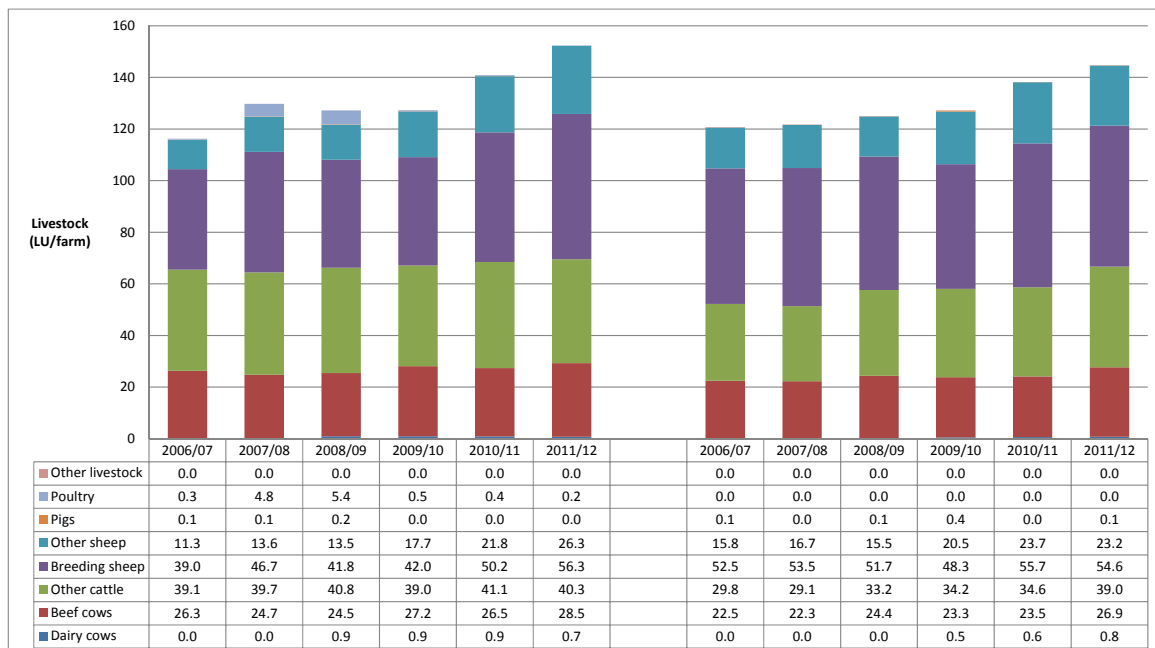
7.2 Farm business and labour incomes and returns to capital



	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	34	37	39	40	50	53	236	248	262	273	321	344
Average farm size (UAA)	132	141	143	143	167	172	121	133	126	126	142	147
Total outputs (£/ha)	786	806	843	907	900	1009	681	624	806	913	826	957
Total inputs (£/ha)	607	530	585	592	606	645	547	479	606	621	615	668
Farm Business Income (£/ha)	179	276	258	315	294	364	134	145	199	292	210	289
Farm Business income (£/farm)	23668	39007	36895	45210	49026	62703	16204	19268	25084	36899	29773	42470
FBI/Net worth (%)	3.8	5.5	5.0	6.2	5.6	6.7	3.4	3.3	4.3	5.9	4.4	5.7
Annual Labour Units (FTE/100ha)	1.3	1.2	1.2	1.1	1.0	1.0	1.4	1.3	1.4	1.3	1.2	1.2
Annual Labour Units (FTE/farm)	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Labour income (£/ALU)	12148	20870	18788	24191	23175	30243	5201	7051	10476	15545	10754	16929
Labour income (£/ha)	156	251	223	270	237	304	73	90	142	209	129	202

In farm business and labour income terms, as well as returns on capital, the organic farms performed better overall due to the higher outputs and lower costs. Both organic and non-organic farms experienced increasing incomes and returns over the period, in part reflecting the improvements in lamb and beef prices. As for some of the other farm types, the average size of the organic farms is larger, so that similar per farm labour use works out at less labour per 100ha on the organic farms.

7.3 Land use, livestock numbers and stocking rates



Stocking rates

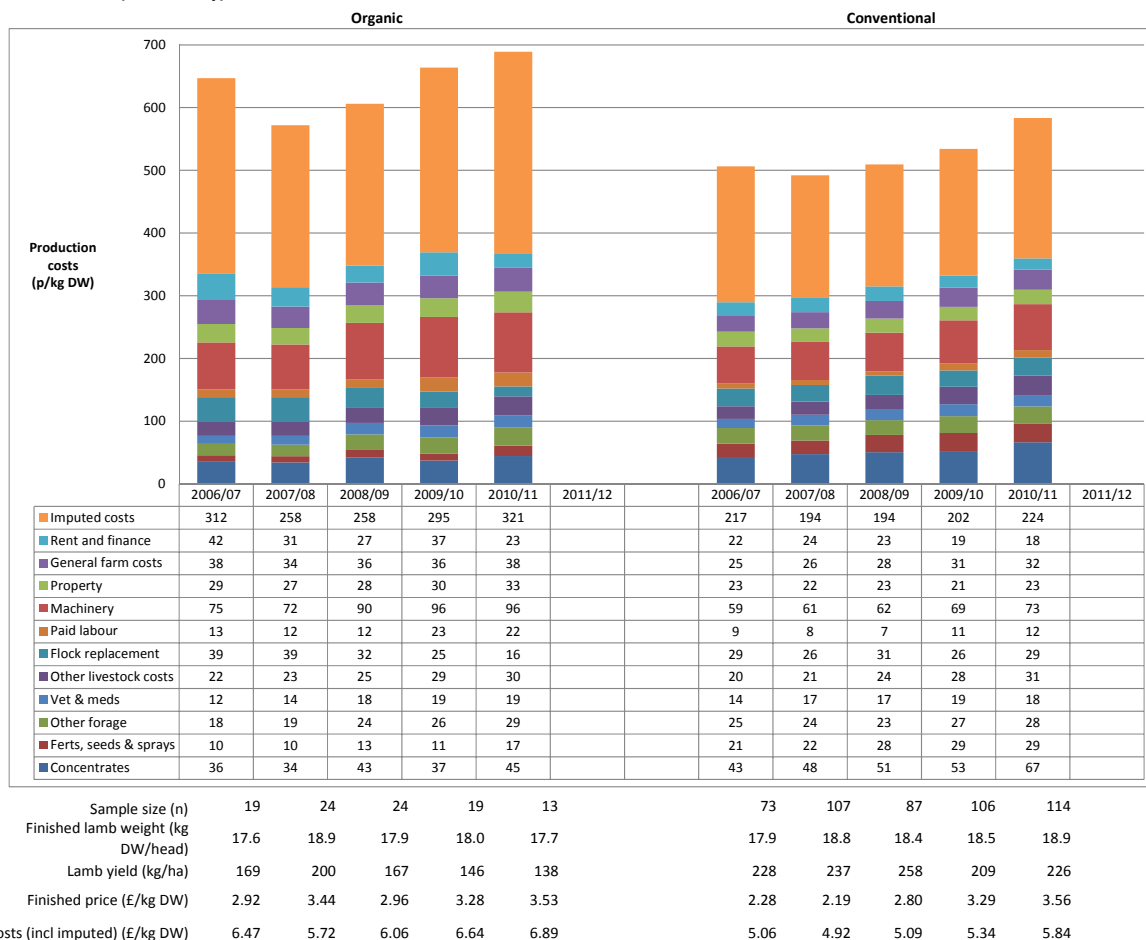
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Total livestock (LU/farm)	116	130	127	127	141	152	121	122	125	127	138	145
Stocking rate (LU/eff. ha)	0.9	0.9	0.9	0.9	0.8	0.9	1.0	0.9	1.0	1.0	1.0	1.0
Grazing LU/forage eff. ha	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.9	1.0	1.0	0.9	1.0

The proportions of the land area used for different crops and grassland were almost identical for both organic and non-organic farms.

While stocking rates per forage ha were lower on the organic farms, the higher average farm size on meant that more livestock were kept on the organic farms, with more cattle but fewer sheep on average.

7.4 LFA sheep enterprise performance

Lamb production costs (Wales only)



Higher productivity LFA sheep margins (England and Wales)

(£/ewe)	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2007/08	2008/09	2009/10	2010/11	2011/12
Sample size (n)	24	23	28	29	26	34	120	135	138	131	133
Total enterprise output	62	64	68	87	88	111	45	60	77	81	98
Total variable costs	25	26	30	35	35	37	29	34	36	39	42
Gross margin	38	38	38	52	53	74	17	26	41	42	56
Total fixed costs	61	55	57	70	59	64	39	38	39	43	46
Net margin - actual costs	-23	-17	-19	-18	-6	10	-22	-12	2	-1	10
Imputed costs	25	26	27	31	34	35	36	34	38	41	41
Total costs (incl imputed)	110	107	114	136	128	136	104	106	113	123	128
Net margin - all costs	-48	-43	-46	-48	-40	-24	-58	-45	-37	-42	-30
Other output/subsidies	46	52	58	63	65	52	35	33	39	41	37
Net margin - incl. subsidies	-2	9	12	15	25	27	-23	-12	2	-1	7

Imputed costs include value of unpaid labour, an imputed rent figure and interest on tenant's capital

Costs are proportioned to enterprise according to the crop area as a % of total actual farm area

Other outputs include LFA /agri-environment (including organic farming), by-products and forage, Single Payment Scheme

As with beef production, the costs of production data for Welsh lamb production show a high proportion of imputed costs, although other costs are not as different between organic and conventional as is the case for other enterprises. Looking at margins based on the England and Wales data for higher productivity LFA sheep, the enterprise output per ewe is higher on the organic sample, with lower variable costs, resulting in higher gross margins per ewe. This remains the case in the most recent years, despite the very low premiums available for organic lamb following sharp increases in conventional lamb prices.

Fixed costs per ewe are higher on the organic farms, resulting in very similar net margins for both groups, but with positive net margins only achieved in 2011/12. The issue of costs of production being higher than price received, though not as extreme as for beef, is still a critical one. While imputed costs were slightly higher for the organic sample, total support payments were also higher due to the agri-environmental component, with the result that net margins including imputed costs and support payments were typically £20/ewe higher for the organic sample, and positive in all years.



8 FUTURE PROSPECTS

There is no doubt that 2012 was a difficult year for farming, whether organic or non-organic, thanks to the weather, and 2013 hardly started any better, with spring growth and grass shortages again leading many producers to question whether the grass might be greener back on the other side of the fence. While this might be attractive in the short term, what are the longer term prospects and would it make sense to stay in despite the immediate challenges?

8.1 Markets

The main headline for many producers and others has been the decline in UK retail sales of organic products since 2008. At first sight this might seem consistent with the impact of the economic crisis and the recession on disposable incomes and willingness to spend on premium products.

However, the UK organic market has not followed the same pattern of development as the mainland European organic market, which has seen continuing growth in organic sales in most countries. Is the UK situation a case of consumers not being able to buy organic products as they are not being stocked by retailers, rather than not wanting to buy them? There is anecdotal evidence that the larger multiple retailers delisted organic lines, particularly fresh produce, in anticipation of rather than as a consequence of a reduction in sales, and in some cases have now started to remedy this. Could the concentration of the organic market in the hands of a small number of retailers, selling a high proportion of own-label products, mean that the decisions of a few buyers have had a disproportionate impact on total organic sales compared with other countries? Or is it a consequence of lack of investment and emphasis on organic in those areas dominated by own-label products? Many other brands are showing good growth in the UK, so there is much potential for multiple retailers to re-engage and get things moving again.

From the producers' point of view, the decline in UK organic sales has been cushioned to an extent by reduced imports taking some of the impact, by export sales of some products such as dairy increasing to meet the increased demand elsewhere in Europe, by increased sales through home delivery services such as Riverford, Abel and Cole and Ocado, and by increased prices for conventional products such as lamb and cereals providing a floor for prices, sometimes at levels higher than previously received in a strong organic market, even though the price premium may have fallen as a consequence.

The decline in UK retail sales slowed during the first part of 2013, with the horsemeat scandal generating renewed consumer interest in organic food, and showed definite signs of improvement in the second half. But demand is not the only factor. The number of certified UK organic producers has been declining in recent years, due initially to difficulties accessing maintenance support in Scotland, and more recently in England and Wales due to very slow conversion rates not replenishing the 'natural' drop out rate and in some sectors including dairy, horticulture and poultry, producers deciding to revert to conventional production. This trend was particularly marked in Wales in 2013. The consequence has been that (seasonally at least) supply shortages are emerging ahead of increased demand, for example for some meat, egg and dairy products. At present, retailers are attempting to respond by not increasing prices paid to producers, but markets generally work by increasing prices to raise supply to meet a given level of demand, so we should expect some movement on this in the near future.

While increased farmgate prices are a real possibility, against a background of generally rising food prices and constrained consumer incomes, the pricing strategies used by retailers to sell organic products need to be kept under close scrutiny. In the main, retailers can and do choose to position organic as a premium product with restricted sales even though prices paid to producers are not substantially different, and could enable a more competitive pricing approach without undermining the organic ethos for the consumer. There is a high price perception barrier to increased consumer purchasing, often not reflecting reality, which needs to be tackled through improved promotion and communication with consumers. As the organic market emerges from the downturn, there should be opportunities to tackle this with increased confidence and energy. Improved promotion of own-label organic products, in particular meat and vegetables, by the multiple retailers could help this process significantly.

It is worth noting that for most cropping enterprises and horticulture, the variable input costs (fertilisers, sprays and casual labour) are much lower for organic, resulting in lower working capital requirements and

often reduced borrowing to fund the working capital. With working capital requirements having trebled in the last five years for many farms this is a major issue, of great importance to tenant farmers and to new entrants to farming where working capital is often a major barrier to production and business expansion.

8.2 Policy environment

In the short term, uncertainty over future market prospects and policy support is having an impact on participation in support schemes in England, Wales and potentially elsewhere in the UK, as producers choose not to renew scheme participation for a further five-years, appearing to prefer the flexibility to be able to drop organic certification in a shorter time frame if market conditions do not improve. Uncertainty over future CAP 'greening' and organic support arrangements may also be contributing to this reluctance.

As of April 2014, there is still no certainty about organic support payments, although the situation with respect to Greening and the automatic qualification of organic producers is clearer. This will embed an unprecedented level of recognition for organic farming's environmental delivery within European agricultural policy until at least 2020, and could lead to a significant renewal of interest in conversion, particularly if the market is also showing signs of recovery.

The national rural development plans will be negotiated with the Commission during 2014, coming into effect from 1st January 2015, although some individual schemes may not start until 2016. For many farmers thinking about whether to stay organic or not, the transitional arrangements have been critical.

Achieving a stable policy support framework with sufficient continuity to give producers confidence to convert and stay organic is essential. This can avoid the waste of previous investments and support when farms revert to non-organic and enables producers to engage with the organic marketplace, responding to supply and demand signals appropriately, without changes to (or interruptions to the availability of) support policies causing market distortions.

8.3 Other issues

The potential to reduce input costs and working capital requirements, also for crop storage and some machinery investments, combined with premium prices and policy support resulting in similar or sometimes higher levels of profitability for most farm types, should lead more farmers, and their advisers and land agents, to look again at the business case for organic farming. The results presented in this report are averages – the financial impact of organic management is a very farm specific question and for some farms organic will be by far the most profitable option. For others, facing up to the cost of investing in new infrastructure and equipment if they revert to non-organic production may be prohibitive.

Premium prices should not be seen as the sole, or even the main, factor determining profitability – in many situations there could be more potential in reducing costs further rather than seeking higher prices. At the same time, many are talking about whether organic farming could survive without any premium prices – while this might be possible in some circumstances for ruminant livestock production, the lower productivity of crops and the high feed costs for non-ruminants will continue to make premium prices essential for most producers.

Increasing yields and overall productivity may be worth pursuing, but not if the increase in purchased inputs exceeds the gain. The Achilles heel for many organic cropping farms is the lack of income generation from the fertility-building phase, especially where livestock enterprises are not a component of the farming system (although there can also be savings if arable farms converting do not have the infrastructure to keep livestock). For some farms there is potential to use the fertility building phase as a fertility break and at the same time to grow biomass for energy production. This may help sustain the profitability of organic cropping farms in the future.

Over the last decade and longer, organic production's advantage has been from greater engagement with consumers, a price premium for organic produce and higher levels of agri-environment support for delivery of public and environmental goods and services. Going forward, organic farming should continue to deliver more public and environmental goods and services and justify higher levels of agri-environment support. Producers, processors, retailers etc. will need to continue to engage with consumers to justify any product premium, but a focus on lower costs of production will also be important.



APPENDIX 1 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 businesses 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:

Farm type characteristics

Cereal farms on which cereals and other crops generally found in cereal rotations account for more than two thirds of their total SGM.

General cropping farms on which arable crops (including field scale vegetables) account for more than two thirds of their total SGM excluding farms classified as *cereals*.

The **Cropping** farm category used in this report includes both Cereals and General Cropping.

Mixed farms include mixed pig and poultry farms as well as farms with a mixture of crops and livestock, not classified elsewhere due to their mixed status.

Horticulture holdings on which fruit (including vineyards), hardy nursery stock, glasshouse flowers and vegetables, market garden scale vegetables, outdoor bulbs and flowers, and mushrooms account for more than two thirds of their total SGM.

Dairy farms where the dairy enterprise, including followers, accounts for over two thirds of the total SGM.

LFA Cattle and Sheep farms in the LFA on which cattle, sheep and other grazing livestock, other than dairy cattle account for over two thirds of total SGM. Includes holdings classified as Severely Disadvantaged Area (SDA) if land is 50% or more within the SDA, and Disadvantaged Area (DA), if land is more than 50% within the DA.

Lowland Cattle and Sheep 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.

APPENDIX 2 DEFINITION OF TERMS AND ABBREVIATIONS

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/investment spending.

Effective Hectares (Eff. ha): The effective hectares constitutes the total farm area minus the area occupied by roads, woodland, wasteland and buildings, and with rough grazing 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 grazing.

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.

Farm Business Income: Farm Business Income (FBI) represents the return to all unpaid labour (farmers, spouses and others with an entrepreneurial interest in the farm business) and to all their capital invested in the farm business including land and farm buildings. It is defined as Total Farm Output (TFO) plus profit/loss on sale of assets minus costs (C), where: TFO is defined as the sum of output from: crop enterprises, adjustment for disposal of previous crops, livestock enterprises, separable non-agricultural diversification, single farm payment, agri-environmental payments, other grants and subsidies, miscellaneous receipts; C is defined as variable costs plus fixed costs.

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

