



# **Production costs and net margins for Welsh organic milk, beef and lamb**

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In 2006, Organic Centre Wales has again been surveying organic dairy, beef and sheep enterprises to establish benchmark production costs and net margins.

Comparison of the OCW results for 2004/5 and 2005/6 with results published by the Welsh Farm Business Survey (FBS, 2006, 2007) shows that variable costs of production per kg liveweight for beef suckler calves and beef finishing are similar for organic and non-organic holdings, but lower for organic lamb production. Lower feed costs and significantly lower forage costs are balanced by higher other variable costs on the organic farms. There was little change in variable costs between the two years. However, for organic milk, feed costs increased significantly in 2005/6 resulting in higher variable costs per litre.

Fixed costs, however, are significantly higher for organic milk, beef and lamb, reflecting lower stocking rates/yields per hectare, and possibly smaller farm or flock/herd sizes. Both of these factors would reduce ability to spread overhead costs, resulting in higher per kg and per litre costs. This would also explain the contrast with organic farm income data (Jackson and Lampkin, 2006), where fixed costs per farm and per hectare are similar when organic and similar conventional holdings are compared.

In 2004/5, organic premium prices were able to compensate for the higher total costs in some cases to give similar or better than conventional net margins over sales and production subsidies. In 2005, production subsidies were replaced by the single farm payment, which is shown separately and explains most of the fall in the net margin values in 2005/6 compared with 2004/5. Without production subsidies, all beef and sheep enterprises, organic and conventional, show a negative net margin, i.e current prices (organic or otherwise) are below the costs of production. For milk, the net margins were positive, with the higher organic price compensating for higher costs to give similar overall results on organic and non-organic holdings.

This net margin value does not however include the value of the farmers' own land, labour and capital resources supplied to the business, meaning that farmers who rent land, borrow capital or pay all the labour will have much higher costs of production than those who don't. These costs also need to be taken into account when asking whether prices cover the full costs of production. To account for this, imputed costs have been estimated for the organic sample<sup>1</sup>. Comparable data is not available for the Welsh FBS sample (although imputed costs are now also published by Eblex for England). The net margins including imputed costs show a significant loss for beef and sheep enterprises, which is likely to be the case for all Welsh farms (as it is in England). In contrast, milk production just about breaks even.

To an extent, the negative margins resulting from lower-than-production-cost prices and imputed costs can be offset by other miscellaneous income, Tir Mynydd, Organic Farming Scheme and other agri-environment payments, as well as the Single Farm payment. But given the political pressure to reduce the Tir Mynydd and Single Farm Payments, and the theoretical desirability of using this income to support the development of the farm as a whole, rather than cross-subsidise loss making enterprises, there is a real challenge to be faced by both organic and non-organic producers.

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<sup>1</sup> Imputed costs are estimated conservatively: farmer and spouse labour is valued at ca. £6 per hour standard, £8 per hour overtime and £10 per hour managerial time; rental value is based on the farmers' estimate of the rental value of owner occupied land; and capital costs are calculated at 6% of tenant's capital less interest payments on borrowed capital.

It is envisaged that future benchmarking of organic dairy and livestock farms in Wales will be integrated within the Welsh Farm Business Survey, starting with the 2006/7 financial year.

### Welsh organic and conventional milk production costs and net margins (p per litre), 2004/5 and 2005/6

Year Production system	Milk			
	2004/5		2005/6	
	Organic	FBS	Organic	FBS
<b>Holdings (n)</b>	<b>17</b>	<b>132</b>	<b>11</b>	<b>115</b>
Feeds	3.5	3.7	4.5	3.9
Vet & meds	0.5	0.6	0.5	0.6
Forage	1.1	1.5	1.8	1.6
Other variable	1.6	1.4	1.6	1.5
Herd replacement	1.1	1.0	1.3	1.1
<b>Total variable costs</b>	<b>7.8</b>	<b>8.2</b>	<b>9.8</b>	<b>8.6</b>
Labour	0.7	0.9	1.2	0.7
Power and machinery	2.8	2.2	2.4	1.9
Land and buildings	1.0	0.5	1.3	1.0
General farm costs	1.3	1.3	1.3	0.9
Rent and finance	2.1	0.9	1.4	1.1
<b>Total fixed costs</b>	<b>8.2</b>	<b>5.7</b>	<b>7.6</b>	<b>5.6</b>
<b>Total costs</b>	<b>16.0</b>	<b>13.9</b>	<b>17.4</b>	<b>14.2</b>
Sales (of which milk)	20.8 (20.3)	21.6 (18.1)	22.1 (22.2)	18.7 (18.0)
<b>Net margin on sales</b>	<b>4.8</b>	<b>7.7</b>	<b>4.8</b>	<b>4.5</b>
Imputed land, labour, capital costs	5.6	n/a	4.2	n/a
<b>Net margin incl. imputed costs</b>	<b>-0.8</b>	<b>n/a</b>	<b>0.6</b>	<b>n/a</b>
Misc revenue and by-products	0.4	n/a	0.3	n/a
Tir Mynydd, OFS, agri-environment	0.9	n/a	0.8	n/a
Single farm payment	--	n/a	1.6	n/a
<b>Net margin incl. other income</b>	<b>0.5</b>	<b>n/a</b>	<b>3.3</b>	<b>n/a</b>

Note: While actual herd replacement costs are taken into account above, a proportion of total costs (about one third on the organic dairy farms) were allocated to other enterprises including calf and replacement rearing.

Further information on organic milk and meat production in Wales can be found in:

Cullen, R; Lampkin, N and Moakes, S (2007) Welsh organic meat market review, 2007. Organic Centre Wales, Aberystwyth.

Smith, C; Frost, D.; Diepen, P.v.; Chisholm, C (2007) Market review of the organic dairy sector in Wales, 2007. Organic Centre Wales, Aberystwyth.

FBS (2006) *Wales Farm Income Booklet 2004-05 Results*. The Farm Business Survey in Wales, University of Wales, Aberystwyth.

FBS (2007) *Wales Farm Income Booklet 2005-06 Results*. The Farm Business Survey in Wales, University of Wales, Aberystwyth.

Frost, D.; Jones, M.; van Diepen, P.; Jackson, A. (2007) *Upland organic beef and sheep production*. Technical guide. Organic Centre Wales, Aberystwyth.

Jackson, A and Lampkin, N. (2006) *Organic farm incomes in England and Wales, 2004/5*. University of Wales, Aberystwyth.

Lampkin, N., Measures, M., Padel, S. (eds.) (2006) *2007 organic farm management handbook*. University of Wales, Aberystwyth.

Weller, R.; Jackson, A. (2006) *Organic dairy production*. Technical guide. Organic Centre Wales, Aberystwyth.

**Welsh organic and conventional beef and lamb production costs and net margins (p/kg LW), 2004/5 and 2005/6**

Year Production system	<b>Suckler calves</b>				<b>Beef finishing</b>				<b>Lamb</b>			
	2004/5		2005/6		2004/5		2005/6		2004/5		2005/6	
	Organic	FBS	Organic	FBS	Organic	FBS	Organic	FBS	Organic	FBS	Organic	FBS
<b>Holdings (n)</b>	<b>36</b>	<b>42</b>	<b>29</b>	<b>41</b>	<b>33</b>	<b>20</b>	<b>32</b>	<b>22</b>	<b>37</b>	<b>92</b>	<b>33</b>	<b>92</b>
Feeds	12	16	13	12	28	30	24	26	16	23	18	21
Vet & meds	9	9	7	9	4	3	5	3	8	7	7	7
Forage	16	24	16	25	10	23	11	21	9	16	10	17
Other variable	20	13	17	11	17	12	18	12	12	9	8	11
Herd replacement	10	10	14	14	--	--	--	--	17	15	15	14
<b>Total variable costs</b>	<b>66</b>	<b>72</b>	<b>68</b>	<b>71</b>	<b>59</b>	<b>67</b>	<b>58</b>	<b>62</b>	<b>62</b>	<b>68</b>	<b>58</b>	<b>70</b>
Labour	13	5	17	8	8	5	13	5	9	4	14	4
Power and machinery	65	45	70	42	41	30	48	33	35	27	36	27
Land and buildings	19	14	30	15	12	10	20	16	9	10	15	11
General farm costs	41	20	39	19	25	14	30	16	19	14	20	12
Rent and finance	24	14	27	14	13	6	17	8	14	11	13	10
<b>Total fixed costs</b>	<b>160</b>	<b>98</b>	<b>183</b>	<b>98</b>	<b>97</b>	<b>64</b>	<b>128</b>	<b>78</b>	<b>86</b>	<b>66</b>	<b>97</b>	<b>63</b>
<b>Total costs</b>	<b>227</b>	<b>170</b>	<b>251</b>	<b>169</b>	<b>156</b>	<b>131</b>	<b>186</b>	<b>139</b>	<b>148</b>	<b>134</b>	<b>156</b>	<b>133</b>
Sales & production subsidies	194	185	111	98	223	152	137	96	181	163	124	113
<b>Net margin on sales/subsidies</b>	<b>-33</b>	<b>15</b>	<b>-140</b>	<b>-71</b>	<b>67</b>	<b>21</b>	<b>-49</b>	<b>-43</b>	<b>33</b>	<b>29</b>	<b>-32</b>	<b>-20</b>
Imputed land, labour, capital costs	217	n/a	199	n/a	132	n/a	142	n/a	120	n/a	95	n/a
<b>Net margin incl. imputed costs</b>	<b>-250</b>	<b>n/a</b>	<b>-339</b>	<b>n/a</b>	<b>-65</b>	<b>n/a</b>	<b>-191</b>	<b>n/a</b>	<b>-87</b>	<b>n/a</b>	<b>-127</b>	<b>n/a</b>
Misc revenue and by-products	21	n/a	25	n/a	13	n/a	16	n/a	12	n/a	13	n/a
Tir Mynydd, OFS, agri-environment	69	n/a	82	n/a	39	n/a	53	n/a	45	n/a	42	n/a
Single farm payment	--	n/a	104	n/a	--	n/a	68	n/a	--	n/a	53	n/a
<b>Net margin incl. other income</b>	<b>-160</b>	<b>n/a</b>	<b>-128</b>	<b>n/a</b>	<b>-13</b>	<b>n/a</b>	<b>-54</b>	<b>n/a</b>	<b>-30</b>	<b>n/a</b>	<b>-19</b>	<b>n/a</b>

Column totals may add up differently due to rounding

Production subsidies replaced by Single Farm Payment in 2005/6

Sources: OCW (2006, 2007); FBS (2006, 2007)