Agriculture in the South West of England 2010/2011

This report includes data collected from the Farm Business Survey for the 2010 to 2011 financial year, relating to the 2010 crop harvest.

Please note that the classification of farms has been revised this year meaning that these results are not directly comparable with those published in earlier reports. Please see the explanatory document at http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection for further details of these changes.

The Farm Business Survey is conducted on behalf of, and financed by the Department for Environment, Food and Rural Affairs, and the data collected in it are Crown Copyright.

The Nature of Farming in the South West of England

The South West region covers a wide range of agricultural environments from the Less Favoured Areas (LFA) of Exmoor, Dartmoor and Bodmin Moor (covering 8% of the region), to the Somerset levels, across to the chalk down land of Salisbury Plain, as illustrated by Map 1. One third of the land area is designated nationally for its landscape quality which encompasses-

- seven Environmentally Sensitive Areas
- two National Parks wholly in the South West, Dartmoor and Exmoor, covering 7% of the region, and a small part of the New Forest National Park
- fourteen Areas of Outstanding Natural Beauty (AONB) covering 30% of the region
- and just under a quarter of the Sites of Special Scientific Interest (SSSI) in England

Map 1 Designations of Landscape Areas

Source: http://www.defra.gov.uk/erdp/images/swgifs/swdes2.gif

Natural England estimated that in March 2011 over 62% of all farmed land (or 1.2 million hectares) in the South West is managed as part of an agri- environment scheme, the majority
of this land (83%) under the Entry Level Scheme (ELS). This represents 26% of the national agreements. The region also contains a large share of the UK Biodiversity Action Plan Priority Habitats, especially the lowland heaths and grasslands, coastal and floodplain grazing and sand dunes. Approximately two thirds of the UK’s Heritage Coast is in the region.

The South West is very important with regards to organic production methods. Defra data produced on organic farms for 2010, indicates that the South West has over 188,000 ha of organic or in-conversion land which represents 10.7% of the total agricultural area, excluding common grazing land as compared with the England figure for organic or in-conversion land which is 4.4% of the total agricultural area. The South West has 38% of the nation’s organic producers and/or processors and 20% of the England area of land. A dataset showing figures from 2002 onwards is available on the Defra website at http://www.defra.gov.uk/statistics/foodfarm/enviro/organics/index.htm

The region is predominantly grass, with 61% of the region’s area of agricultural land being grass, the majority of which is over five years old, plus an additional 70,000 hectares of sole occupancy rough grazing (4% of agricultural land). From 2004 to 2007 the area of cropping steadily decreased, but increased again for 2008 and 2009 only to fall again in 2010.

Sheep numbers in the South West have decreased each year from 2004, according to June Census data, with the number of sheep 12% lower in 2010 than the 2004 level. (Figure 2)

From 2004 to 2010 period the total cattle numbers have ranged between 1.72 and 1.80 million head and have remained steady over the last seven years.

With the decrease in numbers of grazing livestock and an increase in the area of grassland in the South West, the stocking rate for 2010 remained similar to the previous three years’ levels thus perpetuating the ‘extensive’ type production systems with modest stocking rates.

The numbers of pigs reared in the South West in 2010 decreased by 10% to 386,529, but poultry numbers increased to 18.4 million birds, an 18% change.

A map of the dominant Farm Type within each parish of South West England is shown in previous versions of this report.

The contribution made by farming in the South West to farming in England

The Government Office for the South West region covers Bristol, North and North East Somerset, South Gloucester, Gloucester, Swindon, Wiltshire, Bournemouth and Poole, Dorset, Cornwall and the Isles of Scilly, Plymouth, Torbay and Devon. It has the largest agricultural area of all the Government Office regions, just under 20% of the total and it is the country’s most rural region with more than half of its five million residents living outside towns and cities.

Table 1 summarises the contribution made by agriculture to both the region and the national economies. In 2010, the gross output for agriculture in the region was £2,722 million, an increase of 4% as compared to the previous year. The South West gross output was over 17% of the national output of £15,538 million.

In terms of the Gross Value Added (GVA), the region contributed £997 million to the national figure of £5,876 million. Using both Gross Output and GVA figures agriculture in the South West is ranked second in importance in England as compared to other Government Office regions, with the East of England Government Office region having the highest output and income. The GVA for the South West was 11% lower than the 2009 figure. Nationally, agriculture contributes 0.5% of the total gross value added in 2009, but the South West figure
is usually twice this figure. The latest data to be published by Defra can be seen in the 2009/10 version of this report.

Within the labour market, the regional work force amounts to 2.5 million people with 61,072 people working in agriculture, 2.44% of the workforce, and 21% of the total labour engaged in agriculture in England.

The South West is predominantly a grass growing region, with 75% of the land grass or rough grazing. This represents 29% of all the English grassland, with over 32% of the English beef and dairy herd and 20% of its sheep grazing this area. Cereal crops cover 12% of the region. The woodland area is also above the percentage area for England. Please refer to Table 16 on the FBS website (http://www.farmbusinesssurvey.co.uk) for more detail on cropping and stocking.

Table 1 Regional Economic Measures

<table>
<thead>
<tr>
<th>Summary measures by region in 2010</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>North East</td>
</tr>
<tr>
<td>North West</td>
</tr>
<tr>
<td>Yorkshire and Humberside</td>
</tr>
<tr>
<td>East Midlands</td>
</tr>
<tr>
<td>West Midlands</td>
</tr>
<tr>
<td>East of England</td>
</tr>
<tr>
<td>South East &amp; London</td>
</tr>
<tr>
<td><strong>South West</strong></td>
</tr>
<tr>
<td><strong>England</strong></td>
</tr>
</tbody>
</table>

(a) Total regional GVA is not yet available for 2010 so data for 2009 are shown for illustration.

Source: Defra

The South West has a greater proportion of small and very small farms (<20 ha) and fewer large farms (>100 ha) compared to England as a whole.

Thus in summary, the South West is predominantly a grazing livestock area, with a large share of England’s cattle and sheep, employing a greater share of the population than other English regions and generating a share of gross added value above the national average.

**The 2010/11 Farm Business Survey year**

**Weather**

Climatic conditions play a major role in the performance of agriculture each year, resulting in significant effects on the incomes of farms. Rainfall is the most influential of all the climatic
conditions, with both the quantity and timing being important to production cycles. There are considerable monthly variations in rainfall both within a year and between years.

The weather for the 2010 crop year can be described, in general terms, as a good year with only November and July relatively wet and nine of the months drier than average. The spring was dry and silage yields were lower than normal but grass growth was good overall and cattle were still grazing late into the autumn (Figure 1).

Figure 1 Rainfall in England SW & Wales S for 2010 crop year as percentage of the 1961-1990 average

The sunshine hours tend to follow the inverse relationship to rainfall, and this is true for the 2010 season with particularly high hours of sunshine in December through to April.

Six months were warmer than the long term average with the autumn/winter period much colder than the long term figures (Figure 2). Frosty, wintery weather were the norm in December through to February rather than in the recent past where mild, wet weather was experienced.

Figure 2 Mean Temperature (degrees C) for 2010 crop year for England SW & Wales S as compared to the 1961-1990 average
Economic factors

Changes in income result from changes in the price of inputs and their usage, and the level of output and unit price, which in turn will dictate the future choice of enterprises. Figure 3 illustrates the trend in producer prices since 2006 as an index. Each commodity has behaved differently over this period, but 2010 figures for cereals are over 72% higher than 2005, cattle 44% higher, sheep 62% higher, milk is 34% higher and the all products figure is 44% higher.

Figure 3 Index of Producer Prices, UK (2005=100)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>111.8</td>
<td>166.7</td>
<td>207.1</td>
<td>150.1</td>
<td>171.8</td>
</tr>
<tr>
<td>Cattle</td>
<td>108.2</td>
<td>109.9</td>
<td>141.9</td>
<td>151.4</td>
<td>144.2</td>
</tr>
<tr>
<td>Sheep</td>
<td>102.4</td>
<td>91.8</td>
<td>116.4</td>
<td>147.4</td>
<td>162.2</td>
</tr>
<tr>
<td>Milk</td>
<td>97.2</td>
<td>112.2</td>
<td>140.4</td>
<td>128.4</td>
<td>133.5</td>
</tr>
<tr>
<td>All products</td>
<td>104.5</td>
<td>118.8</td>
<td>143.3</td>
<td>135.8</td>
<td>144.4</td>
</tr>
</tbody>
</table>

Source: Defra, National Statistics

Whole year figures disguise the changes within the year, as illustrated by the wheat prices for the 2010 crop year. It was a very volatile year for UK prices of wheat and this volatility continues into 2011. (Figure 4)

Figure 4 UK Feed Wheat Prices

Source: Defra

Figure 5 illustrates how the price of milk has changed since 2008, with the high price throughout 2008, followed by the low prices of 2009, with a slight improvement in 2010. The milk prices in 2011 are forecast to be the best for the four year period.
Input prices have risen for a number of products as shown in Figure 6. The fluctuations in the value of oil are continuing to affect agriculture in a number of ways. Direct fuel costs on holdings have fallen from a very high level in 2008, but have increased again in 2010, whilst delivery and collection costs also remain high. Fertiliser prices, in particular, have gone up as raw material costs rose and the global economic crisis affected demand on the world market, the value of fertiliser for 2010 being 80% higher than the 2005 figure.

In the last two years animal feedstuffs have been over 50% higher than the 2005 figure, with the cost of protein sources the major reason for the change.
The 'All means of agricultural production' figure was 40% higher in 2008 than 2005 but the figure fell back to close to a third higher in 2009 only to increase again in 2010 at 36% higher than 2005.

The changes to the Costs Indices have been largely similar to the changes to the Producer Prices Indices, hence costs have eroded much of the benefit of the large changes to the output from agriculture.

Figure 7 shows the retail price of gas oil (red diesel) which is a major input for farmers and growers. It shows the monthly price rather than an annual index as seen in Figure 6.

Figure 7 Trends in the price of gas oil (red diesel), 2008 to 2011

![Retail prices for gas oil (red diesel), 2008 to 2011](image)

Source: DTI

It is common for farming businesses to contract forward for some of their inputs with feed, fertiliser and electricity, regularly purchased forward for a year, thus transferring the price changes to the next crop year. There is a tendency for smaller farms, those with a limited cash flow or those with lower levels of inputs not to forward buy, consequently these farms will have suffered higher input prices during the year when the increases occurred.

Interest rates have remained relatively low and stable for a number of years, but since the current economic crisis the Bank of England Bank Rate has moved to historic lows, with the fall occurring during the 2008/09 accounting period. Despite this the cost of borrowing money from the banks has not fallen as much, with the rate now charged dependant on the LIBOR rate which is higher than the Bank of England Base Rate. The full impact of low interest rates was felt during the 2009-11 financial years.

A characteristic of the agricultural industry is seasonal fluctuations in the net borrowing with the autumn dips accounted for by the start of arable crop sales and the receipt of the Single Payment Scheme. A number of businesses have had higher incomes each year for the last three years, however some of the extra profit was not shown as cash, but as higher valuations. Cashflow was a problem on a number of farms, particularly those who were investing in their businesses. This led to a higher borrowing requirement usually provided by the 'banks'. Bank lending to agriculture has increased by 26% over the last five years. Agriculture has chosen not to/or is unable to reduce its indebtedness. Businesses need to develop and re-invest, so the combined long period of recent poor incomes and higher levels of investment, has resulted in a more indebted industry.
Policy Developments

The Single Payment Scheme was in its sixth year in 2010. The payment window opened in December with the start of full payments and, generally, all payments were earlier than in previous years with fewer problems with the claims. Outstanding issues regarding claims made for SPS in earlier years are still being resolved. The CAP reform process has started but the proposals for changes in 2013 were only published in late 2011 and mark the start of a long period of negotiation to change the way the CAP operates.

Nationally the level of involvement in the Environmental Stewardship Schemes has fallen slightly against a target of 70% coverage, at the end of March 2011 was 67% a fall of 1% on the previous year. The South West has 62% of its area covered by agri-environment schemes. The majority of farmers who intend to apply to the ELS have now done so, with those remaining outside the scheme deciding that the income is not sufficient to warrant an application. The region is also below target for expired Countryside Stewardship Scheme (CSS) and Environmentally Sensitive Areas (ESA) schemes moving over to environmental stewardship. Large numbers of schemes will end within the next year and there is now real concern regarding the uptake of new schemes with the Government wishing to have a ‘set-aside replacement’ scheme. Currently the Campaign for the Farmed Environment, which is a voluntary initiative, is trying to encourage more uncropped farm area and more ‘in field’ Entry Level Scheme options.

The last year for the Hill Farming Allowance scheme was 2010 and it only made payments on Severely Disadvantaged Areas. It is replaced by the Upland ELS, but for those producers in older schemes there will be a transitional period so that double funding can be avoided. The Upland Transitional Payment (UTP) is paid on land areas still part of ESA and CSS agreements. The UELS went live on 1 July 2010 and nationally the sign up was on target but a number of producers in the South West of England have found eligibility criteria difficult to achieve and have delayed entry into the scheme or will not be making applications.

The South West region has 12 catchment areas that are part of the Catchment Sensitive Farming Delivery Initiative (CSF) which encourages land managers to voluntarily adopt practices that maintain or reduce diffuse emissions of pollutants into rivers, groundwater and other aquatic habitats at acceptable levels. The initiative also includes a grant scheme for capital works that would benefit water quality in priority catchments. The uptake of this initiative is good and small capital works are common amongst those farmers involved.

The Nitrates Directive requires member states of the EU to identify waters which are, or could become, polluted by nitrates and to designate as Nitrate Vulnerable Zones (NVZ) all land draining to those waters and contributing to the pollution. Approximately 70% of England is now covered, with extra areas recently included and the regulations are challenging the agricultural industry, particularly the storage and spreading of livestock manures.

Additional rules from January 2009 for holdings within a pre-existing NVZ, and for newly designated holdings came into force 1st January 2010. The NVZ rules are a Statutory Management requirement for cross compliance under the SPS and failure to comply could lead to deductions in payments under the SPS.

The continuing problems with Bovine TB in the South West are influencing the systems of production used and the loss of productive stock is reducing the longer term profitability of those businesses affected by the restrictions. The dairy and beef industries are finding it hard to replace cows lost due to the low numbers of replacements available, the high cost of purchased stock and the rates of compensation paid for breeding stock lost to the disease. The number of South West herds 'under restrictions' stands at 23% in the Autumn of 2011.
Farm Business Survey figures for the South West of England 2010/11

All Farms

Farm Business Survey data which represents ‘All Farms’ can illustrate how the South West region is performing as a ‘whole’ compared to the England data on an individual farm basis. Figure 8 shows the per farm figures for England and the South West. For 2010/11 the South West has a Farm Business Income per farm equivalent to 75% of that for the whole of England. It is worth noting that the difference in income would be even more pronounced if the data for the South West were to be removed from the data for England.

The classification of farms has been revised this year meaning that the results for 2010/11 are not directly comparable with those published in earlier reports. Figure 8 shows the trend of Farm Business Income (FBI) over the past 6 years. However, the data for 2009/10 is shown twice, once with the former typology specifications and once with the new typology specifications to allow a direct comparison of the data for 2010/11 and 2009/10. The difference in typology has altered the FBI for England and the South West for 2009/10 by between 2% and 3%, however, because of the significance of the increase in 2010/11 the overall trend and comparison with previous years is still valid.

Figure 8 Farm Business Income per farm, South West and England

<table>
<thead>
<tr>
<th>Year</th>
<th>England</th>
<th>South West</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005/06</td>
<td>28559</td>
<td>24167</td>
</tr>
<tr>
<td>2006/07</td>
<td>34358</td>
<td>24026</td>
</tr>
<tr>
<td>2007/08</td>
<td>48144</td>
<td>39158</td>
</tr>
<tr>
<td>2008/09</td>
<td>50917</td>
<td>39082</td>
</tr>
<tr>
<td>2009/10*</td>
<td>43348</td>
<td>35198</td>
</tr>
<tr>
<td>2009/10**</td>
<td>44210</td>
<td>36216</td>
</tr>
<tr>
<td>2010/11</td>
<td>57265</td>
<td>42872</td>
</tr>
</tbody>
</table>

For 2010/11 the Farm Business Income per farm increased by 30% for farms in England, whilst there was an increase of £6,656 per farm in the South West, an 18% improvement.

The mix of farm types and sizes of farms determine the ‘All Farms’ figure for each region and Table 2 indicates the South West regional differences as compared to the all England data.

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1 The classification of farms has been revised this year meaning that the results for 2010/11 are not directly comparable with those published in earlier reports.
* Farm typology up to this point is calculated using Standard Gross Margin
** Farm typology from this point is calculated using Standard Output
### Table 2 Farm Characteristics by region

<table>
<thead>
<tr>
<th></th>
<th>Farmed Area (Ha)</th>
<th>Tilled area (Ha)</th>
<th>ALU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>England</td>
<td>South West</td>
<td>England</td>
</tr>
<tr>
<td>All farms</td>
<td>137.4</td>
<td>121.5</td>
<td>74.2</td>
</tr>
<tr>
<td>Cereals</td>
<td>170.2</td>
<td>194.2</td>
<td>154.8</td>
</tr>
<tr>
<td>Dairy</td>
<td>140.6</td>
<td>146.7</td>
<td>40.6</td>
</tr>
<tr>
<td>LFA Grazing Livestock</td>
<td>151.3</td>
<td>139.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Lowland Grazing Livestock</td>
<td>105.4</td>
<td>85.3</td>
<td>11.8</td>
</tr>
</tbody>
</table>

The South West has a higher percentage of ‘Grazing Livestock’ farms, which produce lower income than any other type of farming. Also using farmed area and annual labour units (ALU) as a measure of size, the farms in the South West are generally smaller. Although the Cereal farms in the South West are 14% larger than the England farms and the Dairy farms are comparable in size between England and the South West, the Grazing livestock whether in the LFA or Lowland are both smaller in the South West than in England as a whole.

Smaller businesses and the less profitable farm types therefore result in lower Farm Business Income per farm in the South West.

Representing the figures on a per hectare basis removes the scale differences and these are illustrated in Figure 9². For 2010/11 there is an improvement compared to the previous year but the South West per hectare figure is only 86% of the England figure.

### Figure 9 Farm Business Income per hectare by region²

![Farm Business Income per hectare](image)

The Farm Business Income per hectare for the most prevalent farm types found in the South West is shown in Table 3 for both England and the South West. The Farm Type figures for the

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² The classification of farms has been revised this year meaning that these results are not directly comparable with those published in earlier reports.

* Farm typology up to this point is calculated using Standard Gross Margin

** Farm typology from this point is calculated using Standard Output
South West indicate a distinct advantage over England in the grass based farm types but lower for the cereal farms.

In general, the climate and land quality in the South West favour grass more than cereals. The Less Favoured Area (LFA) in the South West includes a large area of Disadvantaged Area (DA) land and the moorland of Dartmoor, Exmoor and Bodmin Moor which are less extreme in terms of altitude and climate than the Severely Disadvantaged Area (SDA) in northern England.

Table 3 Farm Business Income per hectare by farm type (£)

<table>
<thead>
<tr>
<th></th>
<th>FBI per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>England</td>
</tr>
<tr>
<td>Cereals</td>
<td>453</td>
</tr>
<tr>
<td>Dairy</td>
<td>477</td>
</tr>
<tr>
<td>LFA Grazing Livestock</td>
<td>142</td>
</tr>
<tr>
<td>Lowland Grazing Livestock</td>
<td>193</td>
</tr>
<tr>
<td>All farm types</td>
<td>392</td>
</tr>
</tbody>
</table>

**Farm Business Survey results by farm type for the South West, 2010/11**

The data presented as part of this report comes from 403 farms for 2010 crop year. There are a number of changes to the sample of farms each year so care needs to be taken when considering trend data, particularly balance sheet type information. The basis for farm typology changed to a Standard Output calculation between 2009/10 and 2010/11 which further influenced farm type and sample changes.

In order to account for those changes two graphs have been produced – one to show the change in FBI between 2009/10 and 2010/11 based on the same typology and one showing the trend for farm type in the preceding 5 years based on the previous Standard Output calculation.

The importance of this differentiation can be seen not only in the amount of change in FBI year on year, but also in the trend. As can be seen when the data for LFA Grazing Livestock is considered. On first assessment it appears that the FBI for LFA Grazing Livestock farms has increased from £19,485 to £24,354. However when the change is classification is taken into account FBI for those farms actually fell between 2009/10 and 2010/11 as can be seen in Figure 11.
The Farm Business Income (FBI) trend can be seen in Figures 10 and 11. For non-corporate businesses, FBI represents the financial return to all unpaid labour (farmers and spouses, non-principal partners and their spouses and family workers) and on all their capital invested in the farm business, including land and buildings. For corporate businesses it represents the financial return on the shareholders capital invested in the farm business. In essence FBI is the same as Net Profit, which as a standard financial accounting measure of income is used widely within and outside agriculture. Using the term Farm Business Income rather than Net
Profit, gives an indication of the measure's farm management accounting rather than financial accounting origins, accurately describes its composition and is intuitively recognisable to users as a measure of farm income.

For 2010/11 the most dramatic monetary increase in FBI was seen by the Cereal farms where income increased by over £46,000 per farm. Dairy farm FBI increased by £1,840. The FBI achieved by Horticulture farms decreased by approximately £4,200 per business with Lowland Grazing Livestock falling by £5,700 per farm. LFA Grazing Livestock farms saw a decrease of approximately £3,500 per farm and Mixed farms, with large areas of cereals, improved their FBI by over £31,000, the greatest percentage increase at 176%. The 'All farms' FBI improved by £6,656 to £42,875 an increase of 18%.

Within each individual farm type, there are differences in the scale of inputs and outputs, but also there are significant differences in the source of output (Table 4).

Table 4 Business Output by Cost Centre (£ per farm)

<table>
<thead>
<tr>
<th>Farm Type</th>
<th>Agricultural</th>
<th>Agri-environmental</th>
<th>Diversified</th>
<th>Single Payment Scheme</th>
<th>Farm Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>192,434</td>
<td>12,283</td>
<td>30,614</td>
<td>45,394</td>
<td>280,725</td>
</tr>
<tr>
<td>Dairy</td>
<td>359,060</td>
<td>4,440</td>
<td>5,171</td>
<td>30,681</td>
<td>399,352</td>
</tr>
<tr>
<td>Horticulture</td>
<td>173,062</td>
<td>1,587</td>
<td>8,155</td>
<td>5,005</td>
<td>187,809</td>
</tr>
<tr>
<td>LFA Grazing L'stock</td>
<td>65,493</td>
<td>11,399</td>
<td>2,010</td>
<td>25,683</td>
<td>104,585</td>
</tr>
<tr>
<td>L'land Grazing L'stock</td>
<td>57,023</td>
<td>5,516</td>
<td>9,837</td>
<td>19,049</td>
<td>91,425</td>
</tr>
<tr>
<td>Mixed</td>
<td>223,046</td>
<td>8,574</td>
<td>92,179</td>
<td>37,716</td>
<td>361,515</td>
</tr>
<tr>
<td>General cropping*</td>
<td>359,600</td>
<td>9,911</td>
<td>14,582</td>
<td>46,194</td>
<td>430,287</td>
</tr>
<tr>
<td>Pig*</td>
<td>459,283</td>
<td>1,129</td>
<td>7,685</td>
<td>8,203</td>
<td>476,300</td>
</tr>
<tr>
<td>Poultry*</td>
<td>716,737</td>
<td>2,880</td>
<td>13,823</td>
<td>9,614</td>
<td>743,054</td>
</tr>
</tbody>
</table>

* National sample

The total output for all farm types shows considerable variation. The output from the two Grazing Livestock farm types is less than half the next lowest farm type, Horticulture. The intensive livestock groups (Pigs and Poultry) have the highest output per farm. Broadly speaking the output from the Agri-environmental, Diversified and Single Payment Scheme costs centres were similar to the previous years for all farm types, but the level has increased for all farm types.

Agricultural activities contributed the largest percentage of output for each farm type, but the level of contribution made by agri-environment schemes, diversification and Single Payment Scheme vary (Table 5).

Lowland Grazing Livestock, LFA Grazing livestock farms and Mixed farms generate close to 62% of their output from agricultural production, but the LFA Grazing Livestock farms are heavily involved with agri-environment schemes such as ESA, HFA, Countryside Stewardship and the more recent Environmental Stewardship schemes. These schemes target environmental improvement, but often require a reduction in agricultural production. For LFA Grazing Livestock farms the output from the agri-environmental schemes is 11% of their total output, which is close to twice that any other farm type.
Grazing livestock farms and Cereal farms have the highest relative contribution of the Single Payment Scheme to output.

Cereal, Lowland Grazing Livestock and particularly Mixed farms have the highest levels of diversified output. Reduction in the labour force over the years has provided the opportunity for cottage letting, whilst contracting offers the opportunity to spread fixed costs and fully utilize machinery to enhance their output, particularly as there are an increasing number of holdings moving to contract farming arrangements.

Horticultural, pig and poultry businesses usually have a relatively small amount of land and are the most agriculturally intensive, with over 92% of their output from agriculture.

The Farm Business Income can also be split into the four Cost Centres and is illustrated in Figure 12.

Allocation of costs is on a direct and notional basis for each cost heading. Three farm types, Cereals, Dairy and Horticulture, are making a positive Farm Business Income from Agriculture with Grazing livestock and Mixed farms making losses of less than £8,000.

Farm Business Income from the Agri-environmental cost centre is highest on Cereal farms followed by the Mixed farms. Horticulture has the lowest Farm Business Income from Agri-environmental cost centre.

Diversification is also very important to Cereal farms and Mixed farms with the Farm Business Income from this source being over three times greater than other farm types.

The importance of the Single Payment Scheme to the total Farm Business Income is substantial with only Dairy and Horticultural holdings having a FBI from agriculture greater than the SPS cost centre.

<table>
<thead>
<tr>
<th>Farm Type</th>
<th>Agricultural</th>
<th>Agri-environmental</th>
<th>Diversified</th>
<th>Single Payment Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>69</td>
<td>4</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Dairy</td>
<td>90</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Horticulture</td>
<td>92</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>LFA Grazing L'stock</td>
<td>63</td>
<td>11</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>L'land Grazing L'stock</td>
<td>62</td>
<td>6</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Mixed</td>
<td>62</td>
<td>2</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>General cropping*</td>
<td>84</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Pig*</td>
<td>96</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Poultry*</td>
<td>96</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

* National sample
Table 6 contains some of the elements within the flow of funds statement to illustrate how the overall financial positions of the different farm types vary.

Table 6 Selected items from Flow of Funds Statement

<table>
<thead>
<tr>
<th>£ per farm</th>
<th>Net additional machinery investment (a)</th>
<th>Net additional capital investment (b)</th>
<th>Net Funds introduced (c)</th>
<th>Non-farm items (d)</th>
<th>Net reduction in external funding (e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>12,839</td>
<td>32,052</td>
<td>19,015</td>
<td>57,340</td>
<td>469</td>
</tr>
<tr>
<td>Dairy</td>
<td>8,009</td>
<td>70,816</td>
<td>18,290</td>
<td>50,226</td>
<td>-38,092</td>
</tr>
<tr>
<td>Horticulture</td>
<td>-1,614</td>
<td>364</td>
<td>6,999</td>
<td>31,475</td>
<td>10,454</td>
</tr>
<tr>
<td>LFA Grazing L'stock</td>
<td>-368</td>
<td>14,064</td>
<td>6,482</td>
<td>25,922</td>
<td>-7,011</td>
</tr>
<tr>
<td>Lowland Grazing L'stock</td>
<td>-1,901</td>
<td>6,608</td>
<td>3,612</td>
<td>22,981</td>
<td>465</td>
</tr>
<tr>
<td>Mixed</td>
<td>11,499</td>
<td>23,002</td>
<td>13,748</td>
<td>33,987</td>
<td>-10,986</td>
</tr>
</tbody>
</table>

Please refer to Table 12 and Table 15 on the FBS website [http://www.farmbusinesssurvey.co.uk](http://www.farmbusinesssurvey.co.uk) within the report menu for the detailed flow of funds statements for each farm type.

(a) Net machinery and equipment investment less machinery depreciation.
(b) Investment in property, quota and landlord capital improvements less sales of property
(c) Funds introduced less funds transferred out
(d) Includes private drawings, which includes personal and company taxation.
(e) Surplus as shown on website adjusted for changes in loans.
Three farm types reduced their external funding with three farm types showing extra borrowings. The Dairy farms had a shortfall in their funding exceeding £38,000. This is the third year where Dairy farms have increased their level of external funding. The LFA grazing Livestock farms and Mixed farms had a shortfall closer to £10,000. Only the Horticultural farms made a substantial reduction in their external funding but this was associated with an introduction of nearly £7,000 of private funds.

For a business to retain its quality of machinery, re-investment should exceed the depreciation charge; otherwise the total value of the equipment will fall. The improvement in Farm Business Income in the last few years has stimulated higher net additional machinery investment but only Cereals, Dairy and Mixed farms have a positive net additional machinery investment. Horticulture and the Grazing livestock farms have allowed their machinery and equipment to ‘dilapidate’.

Net additional capital investment for all farm types is, in general, still at a high level, again but with Dairy farms investing over £70,000 the largest by far. This reflects the expected higher income, modest recent major investment, the need to expand production to maintain incomes and the tendency for agriculture to spend any money it generates by re-investing in their farms.

All farm types introduced their own funds during the year and on average this was over £11,000 or 30% of their Non-farm items. Cereal farms introduced the highest levels of funds, amounting to a third of their Non-farm items. In general fund flow deficits are the result of low incomes generating insufficient cash flow to cover the investment and private drawings, or large re-investment in the business by producers who are making higher incomes.

Total assets vary across the farm types (see Table 7), with farm size being a major factor.

Table 7 Total assets

<table>
<thead>
<tr>
<th></th>
<th>Average total assets (a) £ per farm</th>
<th>Net worth % (b)</th>
<th>Output as % of average total assets</th>
<th>MII as % of Tenants Capital (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All farm types</td>
<td>1,276,984</td>
<td>88</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Cereals</td>
<td>2,199,732</td>
<td>93</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Dairy</td>
<td>1,585,821</td>
<td>81</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Horticulture</td>
<td>543,029</td>
<td>90</td>
<td>35</td>
<td>0</td>
</tr>
<tr>
<td>LFA Grazing I’stock</td>
<td>996,447</td>
<td>94</td>
<td>10</td>
<td>-4</td>
</tr>
<tr>
<td>Lowland Grazing I’stock</td>
<td>990,601</td>
<td>92</td>
<td>9</td>
<td>-6</td>
</tr>
<tr>
<td>Mixed</td>
<td>1,487,858</td>
<td>84</td>
<td>24</td>
<td>4</td>
</tr>
</tbody>
</table>

(a) Average of opening and closing assets for 2010/11 farm  
(b) Closing net worth as percentage of closing total assets  
(c) Management Investment Income as percentage of closing Tenants capital

The percentage net worth reflects the indebtedness of the businesses with either static or only marginal changes in all farm types. Grazing livestock farms show the lowest output against total asset values, indicating the extensive production cycles, while horticulture, dairy and
mixed farms assets generate much higher output. The output against total asset values was static or fell for all farm types except the Mixed farms.

Return on Tenants Capital represents the return to the farmer and spouse for their own management input, with all farm types showing improved performance as compared to the previous year except Lowland Grazing Livestock farms. Grazing livestock farms are still showing a negative return. The increase in performance of the Cereal farms means that their improvement is the most dramatic.

The levels of closing liabilities fluctuate between years, depending upon the levels of income, capital investment and private drawings, but are higher at the end of 2010/11 than in previous years for Dairy, Grazing Livestock and Mixed farms. This represents the extra investments these businesses have made in the last few years and incomes being insufficient to cover the levels of expansion and capital investment required. The income levels have increased in the same period, from a historically low point, but these extra borrowings will need to be repaid and the interest on them will reduce the income from future years.

Cereal farms in South West England

The Cereal farms, for 2010/11, farmed 194 hectares with 72% as owner occupied land. These are the largest farms of all the farm types in the South West utilising nearly 50 hectares more land than the next largest farm type. Winter wheat was the dominant crop, with nearly 64 hectares sown. Barley, oilseed rape, peas, beans and other cereals account for another 72 hectares. Grass occupied 16% of the land with an average of 17 cattle and 47 sheep per holding, amounting to 17 livestock units. The units operate on 1.9 labour units, with the farmer and spouse representing 48% of the total.

Total farm output averaged £281,239, with crop enterprise output contributing 62% of the total, whilst livestock generated £5,675. Fertilizers and sprays represented 74% of the total variable costs of £61,009. Fixed costs were considerably higher at £151,366 with land and building charges the largest component. This group of farms received the highest level of Single Payment Scheme of all the South West farm types (£45,394 per farm).

Farm Business Income more than doubled to £86,870, the highest level of income achieved for the last eight years, as shown in Figure 11. The change in FBI resulted from the decrease in variable costs and improved farm output.

Fixed assets total more than £2.0 million, with land and buildings being 91% of this figure. Current assets of crop, livestock, stores and cash reserves total £195,729. Total external liabilities came to £166,778, with 62% as long term loans, and the interest charged on liabilities, net of receipts on cash balances came to £3,584. Net worth represented 93% of the closing asset values indicating a very strong balance sheet.

The business flow of funds shows a surplus of £469. On average, close to £19,000 of funds were introduced to the business, in addition to extra loans worth £23,000. There was a large extra investment in machinery of just over £13,000 and £32,000 in net capital investment. Cereal farms had a net purchase of land and buildings of £13,000. Non-farm items (mainly private drawings) were £57,340.

Dairy farms in South West England

The Dairy farm sample is made up of 106 farms, with an average farmed area of 147 hectares, of which 55% is owned. There are an average 153 milking cows, 138 other cattle

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3 The classification of farms has been revised this year meaning that these results are not directly comparable with those published in earlier reports.
and a small sheep, pig and poultry presence. Labour totals 3.8 annual labour units, with 41% provided by the farmer and spouse. Of the remainder, regular paid labour is the greatest element at 1.4 labour units.

Milk and milk products make up nearly three quarters of the total farm output, while the Single Payment Scheme contributes less than 8%. Cereals and other cash crops play a relatively small role, with 6% of output from 17.1 hectares.

Historically, Dairy farms have been more reluctant to enter agri-environmental schemes than some of the other farm types as they operate a more intensive farming system. However, more farmers have looked towards Environmental Stewardship Scheme as a way of increasing total farm output and the majority of farms are now involved with these schemes. Currently Dairy farms receive, on average, £4,440 from the agri-environment schemes, which represents 1% of their farm output. Milk output from these farms increased by 19% between the last two years, but with milk price improving by over 1 p per litre during the year the level of milk production increased with the current sample of farms keeping, on average, 18 more cows than the previous year's sample of farms.

Variable costs totalled £162,418, increasing 17% on the year, with concentrate feed and forage the largest element. Labour and Land & Building costs represent nearly half of the fixed costs, and a Net Farm Income of £49,379 was achieved, an increase of 5%.

Closing Total Assets on these farms are £1,648,913, with total liabilities of £308,753 and 81% owner equity, a 2% deterioration on the previous year. Net interest charges for the year came to £5,610 which is an increase of close to a third from the previous year.

The Dairy farms had a flow of funds deficit of over £38,000. The deficit was represented by higher loans but improved current account balances. The net capital investment for dairy farmers has averaged £38,000 per year for the last four years. This year, over £70,000 was invested with 80% being spent on land & milk quota. The average does however hide the range of expenditure, with a number of farms up-grading their facilities along with an expansion in the number of cows, while others are keeping re-investment to a minimum as they review their longer term involvement in dairy farming.

**Horticulture in South West England**

Horticulture covers a very diverse range of enterprises and this group of farms cover specialist fruit, glasshouse and hardy nursery stock together with other horticulture. The average farm size for these businesses is 27.5 hectares, with a farmed area of 24.6 hectares. Top fruit occupies the largest area with 5.3 hectares. The average farm has a grassland area of 8.2 hectares, with a small livestock presence of 6 livestock units. This group of producers has the highest number of annual labour units with 4.6, primarily made up of the farmer & spouse (1.4 units), regular paid labour (2.0 units) and casual or seasonal labour (1.4 units).

Total farm output was close to £188,000, an increase on the previous year and this increase was seen in most enterprises, except glasshouse vegetables and outdoor flowers and nursery stock whose output fell. The contribution made to output by agri-environment schemes and the Single Payment Scheme was £6,592, which represents 4% of the total output.

Seed and other crop costs represent 76% of the variable costs, while labour costs of £55,468 are 53% of total fixed costs. The Farm Business Income came to £30,128, a decrease of a 12% compared to the previous year.

With a small farm size, total asset value comes to £522,865, of which 82% is tied up in land and buildings. Liabilities amount to £54,912, with 58% from bank overdraft and short term loans. The flow of funds shows the lowest net capital investment of all farm types and a deficit for additional machinery investment. There is surplus of funds of £10,454 along with a transfer in of funds of £6,999 and private drawings of £31,475.
LFA Grazing Livestock in South West England

These farms cover the Severely Disadvantaged Area (SDA) and Disadvantaged Area (DA) regions of the South West, with an average farmed area of 140 hectares, of which just over 34% is tenanted land.

There is very little cropping, and over 16 hectares of the grass is sole occupancy rough grazing. Stocking consists of 38 beef cows and 82 other cattle, with 405 ewes. On average, 1.7 annual labour units are required by these businesses, with the farmer and spouse providing two thirds of the input.

The contribution of agricultural output to total output is close to being the smallest for all farm types at 63% of output with 11% of output being received from various agri-environmental schemes. However, there is a relationship between the level of receipts from agri-environmental schemes and the agricultural systems used. The level of stock per farmed hectare kept on these farms, in the last five years, is similar, so there is, as yet, no evidence of de-stocking as the consequence of the 'de-coupling' of payments for the Single Payment Scheme. The Hill Farm Allowance scheme was replaced by the Upland Entry Level Scheme but some farms need transitional arrangements until their 'classic' schemes end (ESA and CSS).

The output from diversification is only 2%, which despite the need for higher output, indicates the limited potential for some diversifications in the remote LFA. The level of farm output is much lower for the Grazing Livestock (LFA & Lowland) groups of farms at approximately half of the next lowest land using farm type, Horticulture farms. The level of Single Payment Scheme received by the Grazing Livestock farms is the lowest of the ‘land using’ farm types, in absolute terms, but they make the biggest percentage contribution to these businesses.

Cattle output for the LFA Grazing Livestock group of farms was over £26,000, and sheep output was over £31,000 which were both increases on the previous year. Purchased concentrate feed and fertiliser make up 54% of the variable costs. The prime fixed costs are land and buildings charges, with labour costs being lower with the majority of work being provided by farmer and spouse. Farm Business Income, for the LFA Grazing Livestock farms, fell to £24,354 (Figure 11) only 56% of the ‘all farms’ figure.

This group of farms had the second lowest level of non-farm items (including private drawings) of all the farm types. Along with about £14,000 of capital investment and an introduction of funds of £6,482, the resulting fund flow deficit was over £7000.

The farm balance sheet shows year end total fixed assets of £931,836, with 84% of the value made up by land and buildings. Total liabilities on these farms are £63,946, with 57% being long term arrangements. Net interest payments in the year amounted to £1,318, an increase of 9%.

Lowland Grazing Livestock in South West England

Lowland Grazing Livestock farms average 85 hectares of total area farmed, primarily of permanent grassland. They run an average of 107 head of cattle and 118 breeding ewes and grow a small amount of cereals, with the grain and straw mainly used on farm. Three quarters of the farm is owned, and only 0.21 of the 1.43 annual labour units on the farm are paid labour.

The total farm output from the Lowland Grazing Livestock farms is the lowest of all farm types. Farm Business Income is also the lowest of all farm types at £18,563.

4 The classification of farms has been revised this year meaning that these results are not directly comparable with those published in earlier reports
Although farming a smaller area than their LFA equivalents, the effective farmed area will be similar when adjusted for rough grazing. Cattle make a greater contribution to output on lowland farms, sheep being a better option on the poorer land of LFA farms.

The highest variable costs are for concentrate feed & fodder and other livestock costs, whilst land and buildings costs are the greatest fixed costs followed by other overheads.

The net funds introduced by Lowland Grazing Livestock farms were lower than the previous year at £3,612, but with capital investment of £6,608 and private drawings of over £22,000 the surplus of funds came to £465.

The year end balance sheet shows a strong position with total assets of £928,538, with over £825,000 of land and buildings. Current assets are £73,025 while total liabilities are £76,036, with nearly half as bank term loans. Total net interest charges for the year were £1,645.

**Mixed farms in South West England**

Mixed farms cover a wide range of farming activities, but with no single dominant enterprise. Therefore the average farm has a combination of arable and grazing livestock together with pigs and poultry.

The average farmed area of these farms was 173 hectares, with 46% tilled. Winter wheat area represents 36% of the tilled area. Winter barley and oilseed rape 11% each. Most of the grassland is permanent, and the average stocking consists of 9 dairy cows, 121 other cattle, 143 ewes, a small pig herd of 10 sows and 176 other pigs and a flock of poultry numbering over 1,250 birds.

The farmer and spouse accounts for close to a third of the labour units on these farms, and paid labour is equivalent to 2.4 annual labour units with the total requirement of 4.0 annual labour units.

Livestock enterprises produce 31% of the farm output, with rearing and finishing cattle the largest contributor, followed by pigs and milk & dairy and then broilers. A quarter of the total farm output comes from Integrated Diversified Activities including contracting.

As with all the livestock dominated farm types, concentrate feed, fodder and other livestock costs are the largest variable costs, but with these farms using more of their home grown feed. The more intensive nature of these farms means that feed accounts for close to half of variable costs. Fixed costs total £215,082, with labour over a third of these costs, followed by machinery fuels and repairs.

Total fixed assets on these holdings were over £1,319,000, with more than 82% consisting of land and buildings. External liabilities totalled £238,339, over 38% of this in the form of other short term loans and the rest evenly spread over the other sources of finance. The farm business showed a £11,000 fund deficit. There was £23,000 of net capital investment, which is almost twice the level of funds introduced (£13,748). The structure of the finance was adjusted with the overdraft decreasing and bank term loans increasing by £24,000.

**General Cropping (England)**

For this year it is not possible to publish regional results covering the South West of England for General Cropping Farms due to the small number of these farms who co-operate with the Farm Business Survey in the region. However the national figures are available for 162 farms of this type and 8% of the national general cropping sample is in the South West.
The total farmed area for this group of farms averages 202 hectares. Over 38% of the land is tenanted with over 90% of the area tilled. Over half the tilled land is cereals, with the remaining area spread between oil seed rape, potatoes, sugar beet and ‘other crops’. Only 15 grazing livestock units are present on the farm, with 17 head of cattle and 15 ewes. 3.3 labour units are active on the farm. Paid labour supplies 2.0 ALU, with the farmer and spouse (1.0 ALU) the majority of the rest.

The 120 hectares of cereals, oilseed and pulses grown generate just over £135,000 output, while the other cash crops of 52 hectares have an output of £93,000, just over 21% of the total farm output. Crop production costs account for 95% of the variable costs. Total variable costs were £107,273. Fixed costs total £231,268; with labour and land & buildings the two highest costs.

Figure 13 Farm Business Income for General Cropping, Pigs and Poultry Farms, 2004/05 to 2010/11 (England)  

Farm Business Income of £111,707 is a 68% increase on the previous year. (Figure 13)

As commented above because of the change in Farm Type classification it is not possible to directly compare FBI across all of the previous years. In order to account for this Figure 13 shows the trend for 2004/05 to 2009/10, then in the Standard Output classification 2009/10 and 2010/11 are compared.

The Farm Business Income of £111,707 is a 68% increase on the previous year. (Figure 13)

These farms spent nearly £20,000 on other capital investments. Net land purchase accounted for a third of the investment with property improvement the remainder. These farms have over £166,000 of machinery and equipment, the highest of all farm types. Total closing liabilities are £257,241, and net worth of £1,879,933.

5 The classification of farms has been revised this year meaning that these results are not directly comparable with those published in earlier reports
* Farm typology up to this point is calculated using Standard Gross Margin
** Farm typology from this point is calculated using Standard Output
General cropping farms often have a fluctuating income due to the crops which they produce. These are often more price sensitive, with local weather conditions potentially leading to a shortage or glut in any one season, while imports can produce sudden price changes.

**Pig Farms (England)**

It is not possible to publish regional results covering the South West of England for the Pig Farms due to the small number of farms who co-operate with the Farm Business Survey in the region. However the national figures are available for 75 farms, and 13% of the national pig sample are in the South West.

The results presented for Pig farms include a range of breeding and finishing enterprises including farms that raise pigs on a contract for a third party. The national average pig farm utilizes 45 hectares with 77% of the farmland owned. More than half of the land is tilled, and a further 5 hectares is let out. Wheat is the predominant crop. Breeding sows average 205 head, with an average of 2,408 other pigs, and very little other stock. The units had 3.5 average labour units, 2.1 being regular paid labour and 1.0 units representing the farmer and spouse.

Farm output is over £476,000 which is a decrease as compared to the previous year. Output from pigs was 89% of the total. Agri-environmental schemes contribute very little, while most of the Single Payment Scheme income of £8,203 relates to relatively small land areas farmed. Concentrate feed is 83% of variable costs, with a third of the cereal output being fed back to stock. Labour charges are the biggest fixed cost. Farm Business Income decreased over £30,000 to £44,439, as illustrated in Figure 13. This is the first fall for three years.

The Pig farms have external liabilities of £258,704 and 36% of these are Bank Term Loans. Total Assets are £851,041 with over 67% consisting of land and buildings. Over £20,000 was spent on land, buildings and landlord capital type investments. This was financed by extra loans or money transferred into the business close to the same level. The higher liabilities will reflect the large amount of investment which has taken place over the last few years, some of which would have been to comply with new animal welfare regulations and the changing requirements of the major retailers. The owner equity ratio is 69%, indicating a more vulnerable position with regard to long term solvency as compared to most of the other farm types.

**Poultry Farms (England)**

Like Pig farms, the limited number of south west poultry farms in the region means their figures are unavailable. However, the national Poultry farm figures are available from 97 farms, with 26% being in the South West. The average national poultry farm is 49 hectares, but generates the highest output of all farm types. Within the sector there are a diverse range of systems producing both eggs and broilers. At one end of the spectrum will be large intensive units supplying national retailers, whilst at the other will be smaller free range or organic producers supplying a more niche market, but still able to make a reasonable return. These farms have an average of over 67,000 birds and little other livestock.

For this year the average output is over £743,000 per farm, with 91% coming from poultry, which makes them even more specialised than the Pig farms. This is a 23% increase as compared to the previous year. They have involvement in agri-environmental schemes, but the level of income is limited due to the small areas of land they farm. Likewise, a small Single Payment Scheme payment is received. Concentrate costs are 54% of total output, and 88% of variable costs. These farms have 4.3 annual labour units on them, nearly one labour unit supplied by the farmer and spouse and 2.9 regular full time employees.
Net Farm Income was £67,562, a decrease on the previous year. Farm Business Income decreased to £68,219, as illustrated in Figure 13.

The Poultry farms have external liabilities of £294,968 and over a third of these are Bank Term Loans. Total Assets are £1,000,349 with over 88% consisting of land and buildings. The owner equity ratio is 76% which is 'better' than the Pig farms but worse than any other farm types, so these farms are also in a more vulnerable position with regard to long term solvency.