A Review of Cornwall’s Agri-Food Industry: Final Report

Matt Lobley, Donald Barr, Liz Bowles, Ruth Huxley, Emma Kehyaian, Nathan de Rozarieux and Angie Shepherd

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1 Introduction

1.1 Background
In 2003 Taste of the West and Cornwall Agricultural Council commissioned the first in this series of studies on the agri-food sector of Cornwall and the Isles of Scilly. At that time, Cornwall’s EU Objective One status was assisting the strategic development of the county’s agri-food sector, although a lack of data on production volumes and post-farm-gate supply chains was hampering the clear direction of that development and Cornwall’s ability to take advantage of opportunities. The resultant data not only helped to fill that gap and inform strategic development but also provided a benchmark, from which future industry development could be measured. The 2006 repetition of the study was therefore able to measure growth and development since 2003, and produced a snapshot of a relatively buoyant and growing sector that was benefiting from a raft of EU funded initiatives and a healthy economy.

Since then, the public funding scenario has been transformed, as has the state of the global economy. It is therefore another critical time to review how this is impacting on the agri-food sector, on supply chains, and on consumer spending and eating habits.

Against this background our 2011 Review of Cornwall’s Agri-food Industry is designed to meet three core objectives:

- Establish a current and accurate picture of the agri-food production, processing and distribution sector in Cornwall and the Isles of Scilly.
- Identify existing UK consumer market trends and investigate changes and developments that have occurred since the 2006 report and assess impact.
- Achieve a more detailed understanding of the future skills needs of the sector and existing barriers to skills development in light of the changing shape of the industry and its driving market forces.

1.2 Methodology and approach
As noted in our previous reports, researching the agri-food sector beyond the farm gate can be challenging. Extensive data is frequently unavailable and although we have made extensive use of Defra data and have been supplied with data from other sources, many of the figures are derived from estimates and calculations and the necessary caveats are detailed in the accompanying text and tables. As with our previous reports, we have also collected a range of data directly from businesses in the agri-food sector. The main elements of our data collection methodologies are outlined below.
• **Analysis of existing data sources**

  Used to calculate the value and size of the sector and associated production volumes. We have always used the most recent data available but this is often a few years out of date. In addition, changes to data collection protocols means that some data is not directly comparable with previously reported data.

• **Online survey of food producers in Cornwall and the Isles of Scilly**

  A new element in our 2011 review is the addition of an online survey of food producers and processors, which ran from June 29th to July 20th. A total of 89 responses were received which represents a response rate of over 22%. The businesses taking part ranged in size from just 1 employee to over 700 staff and provided employment for a total of 3,891 people. Analysis on the online survey results has been used to inform the main sector chapters that follow.

• **Semi-structured interviews with producers, processors and key informants**

  Semi-structured telephone interviews were undertaken with a sample of respondents from the 2006 survey, and others from Cornwall Food and Drink’s database, including new businesses that have set up since 2006. The interviews were designed to provide an additional depth to the online survey, to plug any major gaps in coverage of the online survey and to gain the insight of key informants in the agri-food sector. The interviews explored changes since 2006, such as the impact of the recession the impact of public funding and identified key challenges and opportunities. A total of 35 interviewees were willing and able to disclose the turnover of their business which collectively amounts to some £888m

The remainder of this report is structured as follows. The following section explores the value of the Cornish food economy in terms of its contribution to employment and Gross Value Added (GVA). Sections 3-7 explore trends and developments in each of the major sectors of the Cornish food economy. Section 8 considers issues relating to skills and training and the impact of EU support. Finally, section 9 presents an overview of the Cornish food economy and considers its prospects in the near future.
2. The value and contribution of the Cornish agri-food economy

2.1 Introduction

This chapter considers a number of different ways of understanding the value and contribution of the Cornish agri-food economy. The contribution of the agri-food economy can be thought of in terms of its relative importance to Cornwall’s economy as a whole and also to the national economy. There are also a number of different approaches to representing the value of the Cornish agri-food sector, such as its contribution to employment in the county and its contribution to Gross Value Added (GVA) which is represented by the value of goods and services produced by the sector minus costs. In order to maintain continuity and comparability with our previous reviews this chapter also estimates the turnover of the Cornish food economy. These are complex issues and this chapter necessarily contains some methodological explanations. These have been kept as concise as possible although a first and important issue is the definition of the agri-food sector and that is the subject of the next section.

2.2 Defining the agri-food sector

As the name implies, the agri-food sector is a concept which encompasses both primary production and the wider food industry. The first is relatively easy to define as equating to agriculture, although even here agricultural activity is not limited to the primary production of raw food-stuffs. The food industry is more complex because it becomes quite diffuse in its routes to final consumption. Apart from specialist food (and drink) retailing, food is commonly only a part of what the consumer is buying. For instance, in non-specialist retailing (supermarkets), food is a large component but there is an increasing amount of non-food in the trolley. In restaurants and pubs the consumer is mainly buying food preparation services. In hotels and other parts of the hospitality industry, food and food preparation services are generally secondary to the other services being consumed. The question therefore is where to draw the line.

¹ Further methodological details can be found in Appendix 1.
For Defra (see Figure 2.1 above) the agri-food sector encompasses all of food and drink retailing and extends to non-residential catering, but not to hotels and other accommodation. At the UK level the links between the parts of this broadly defined agri-food sector are likely to be quite strong: the majority of the UK’s primary food production and food manufacturing will be supplied to the UK food retailing and catering sectors. At sub-national level these links are likely to be much weaker. For example, modelled supply chain data\(^2\) for the South West region suggests that 44% of the region’s primary agricultural production is supplied to the region; 38% to businesses and 6% direct to households. The great majority of the primary produce going to business is going to food and drink manufacturers. The manufacturers themselves source 42% of their inputs from within the region but only 28% of their output is supplied to the region\(^3\).

Despite the popular rhetoric of local food for local people, at still lower geographies the general expectation is that self-containment will be even further reduced: in other words, there is less likelihood of being able to meet the internal demand for as many commodities / products for as much of the time. In Cornwall’s case this may be marginally offset by the county’s peninsular geography, relatively high food output and relatively poor transport links. Nevertheless, the majority of food produced in Cornwall will be consumed elsewhere and only a small fraction of the county’s food demand is likely to be locally supplied.

\(^2\) ECON\textit{i} – the South West Regional Accounts

\(^3\) The division between the region and the rest of the UK is based on data that is only rated as ‘poor to fair’ and so should be treated with some caution.
This progressive weakening of links suggests a narrower definition of the agri-food industry, “core agri-food industry”, is more appropriate at county level. The constituent components of different parts of the agri-food sector are outlined below.

Primary production
- Food and drink manufacturing
- Food and drink wholesaling
- Specialist food and drink retailing

“Core agri-food sector”

Non-specialist predominantly food & drink retailing
- Food and beverage services

“Secondary food sectors”

Accommodation
- “Food related”

With those services that incorporate food and drink consumption there is clearly an overlap with that part of local demand that comes from tourism. In the division set out above these services to tourism lie mainly outside of what we are terming the “core agri-food industry”.

Having drawn up these distinctions it is none-the-less important to still consider the “secondary food sectors” and the “food related” sectors as an important part of the context for the core agri-food industry. These sectors may be key to strengthening local demand for core agri-food output and many businesses in these sectors would consider themselves to be a part of Cornwall’s broader agri-food landscape.

2.3 Employment in the agri-food sector

Table 2.1, below, summarises employment in the food and drink sector. The data comes from the Business Register and Employment Survey (BRES) and is based on the average employment across the two most recent years available, 2008 and 2009.4, 5

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4 This addresses some of the volatility that occurs in smaller sectors at lower geographies. The data is internally consistent with the one significant exception of agriculture, where the data is not collected as part of BRES but is provided by Defra.

5 Defra do not provide county level employment data to BRES so the June Survey has been used to produce an estimate.
<table>
<thead>
<tr>
<th>Sector Description</th>
<th>Whole Economy</th>
<th>Non agri-food</th>
<th>Core agri-food</th>
<th>Secondary food</th>
<th>Food related</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Agriculture, forestry &amp; fishing (A)</td>
<td>12,400</td>
<td>12,400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: Mining, quarrying &amp; utilities (B, D and E)</td>
<td>2,900</td>
<td>2,900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3: Manufacturing (C)</td>
<td>18,300</td>
<td>11,800</td>
<td>6,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4: Construction (F)</td>
<td>12,100</td>
<td>12,100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5: Motor trades (Part G)</td>
<td>4,300</td>
<td>4,300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6: Wholesale (Part G)</td>
<td>8,200</td>
<td>4,500</td>
<td>3,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7: Retail (Part G)</td>
<td>28,600</td>
<td>14,700</td>
<td>2,200</td>
<td>11,700</td>
<td></td>
</tr>
<tr>
<td>8: Transport &amp; storage (incl postal) (H)</td>
<td>8,500</td>
<td>8,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9: Accommodation &amp; food services (I)</td>
<td>26,700</td>
<td>15,800</td>
<td>10,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10: Information &amp; communication (J)</td>
<td>2,600</td>
<td>2,600</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11: Financial &amp; insurance (K)</td>
<td>2,800</td>
<td>2,800</td>
<td></td>
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<tr>
<td>12: Property (L)</td>
<td>3,600</td>
<td>3,600</td>
<td></td>
<td></td>
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<tr>
<td>13: Professional, scientific &amp; technical (M)</td>
<td>9,800</td>
<td>9,800</td>
<td></td>
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<tr>
<td>14: Business administration &amp; support services (N)</td>
<td>9,200</td>
<td>9,200</td>
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<td>15: Public administration &amp; defence (O)</td>
<td>9,000</td>
<td>9,000</td>
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<td>16: Education (P)</td>
<td>20,100</td>
<td>20,100</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17: Health (Q)</td>
<td>27,500</td>
<td>27,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18: Arts, entertainment, recreation &amp; other services (R,S,T and U)</td>
<td>12,000</td>
<td>12,000</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Column Total: 218,600 155,400 24,800 27,500 10,900

Percentage of whole economy: 100% 71% 11% 13% 5%

As can be seen from Table 2.1 employment in all agri-food and drink related sectors in Cornwall is significant. This headcount analysis shows that core agri-food activities provide employment for 24,800 people within a total employment of 63,700 in all food and drink related sectors. In percentage terms 11.3% (compared to 4.5% for GB) of the county’s employment is in core agri-food activities, to which can be added a further 12.6% (compared to 9.1% for GB) in supermarkets, bars and restaurants⁶ and 5.0% (compared to 1.4% in GB) in accommodation, giving a figure of 29.1% (compared to 15.0% in GB) in all food and drink related sectors.

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⁶ In SIC terminology 'non-specialist predominantly food and drink retailers’ and ‘food and beverage services’
Clearly, these are very large differences in the structure of employment compared with the rest of the nation and, even allowing for any uncertainties due to data quality issues, it seems safe to say that the agri-food sector is two to two-and-a-half times more important for employment in the county as for GB as whole. However, as these sectors also tend to have relatively low levels of labour productivity, the food and drink share of the county's economy, in value terms, will be significantly less.

The detailed structure of employment is presented in Appendix 1. Particularly noteworthy points include the observations that:

- Agriculture is responsible for about three times as much employment in Cornwall as it is generally in Great Britain.
- Over one third of Cornwall's manufacturing employment is in food and drink processing compared to only 15% in Great Britain’s manufacturing as a whole.
- Cornwall’s is particularly well represented (in employment terms) in the processing and preserving of meat and production of meat products and the manufacture of bakery and flour based products and to a lesser extent in the manufacture of dairy products.
- 45% of the county’s wholesaling employment is food and drink related compared to only 21% in Great Britain as a whole.
- Employment in supermarkets\(^7\) outnumbers employment in specialist food retailing by a margin of 5.4 to 1 but this is actually a stronger specialist food presence than the GB equivalent figure of 6.5 to 1.

Taken together, these figures demonstrate just how important the agri-food sector is in terms of underpinning the employment base of Cornwall and the Isles of Scilly.

### 2.4 Gross Value Added in the agri-food sector

#### 2.4.1 ONS published GVA - Agriculture

Official GVA data is published by the Office for National Statistic (ONS) but at lower geographies there is only very limited breakdown by industry. In practice this means that for this study the ONS data available is limited to primary production\(^8\). Because better data is available it is possible to do much more detailed analysis on agriculture than any other parts of the agri-food industry. Some further analyses are presented in Appendix 1.

What is very clear is that the primary food production sectors have been on a different growth trajectory to the Cornish economy as a whole, with apparently no

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\(^7\) Non-specialist predominantly food and drink retailers

\(^8\) And even this is slightly contaminated by the inclusion of some non-farming elements such as hunting, forestry and landscape services and of course farming itself includes some non-food output.
overall growth at all over the longer term in nominal terms\(^9\) in the sector while the county’s economic output has grown steadily (see Figure 2.2). That said it is apparent that from 2005 the sector was recovering from previous declines. The nominal value of the sector’s output (Figure 2.2) actually fell between 1996 and 2001 but later recovered to end the period unchanged. As a result, ‘agriculture’s’ share of the county’s GVA has fallen from 6% in 1995 to 3% in 2008 (Figure 2.3). This compares with a fall from 2% to less than 1% for the UK as whole. Although various agricultural sectors have experienced improved output prices since 2008 and at a national level the contribution of the agri-food sector to GVA has increased slightly, agriculture’s share in this has declined.

**Figure 2.2  Agriculture’s nominal contribution to Cornish GVA 1995-2008\(^{10}\)**

This is not a very surprising result, except perhaps just how small the value of agriculture is, even in Cornwall, as there is generally less scope for growth in primary production compared to other sectors of the economy. That said the value of agriculture’s primary production is only part of its total value which includes a range of other environmental and cultural services that are important but beyond the scope of this project. Fishing meanwhile has more or less held its own indicating some real growth in the value of output.

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\(^9\) Below national level GVA data is also not deflated – that is, it is presented in the prices that were prevailing at the time with no adjustment for inflation.

\(^{10}\) To get them visible on the same chart we have ‘agriculture’ and fishing on a ten times bigger scale than total GVA.
There is a notable distortion in both Figures 2.2 and 2.3 where, in 2005, agriculture’s nominal and relative contribution is lowered by the switch from production subsidies to ‘decoupled’ area-based payments. Although this will in the longer run have influenced production decisions (see Lobley and Butler 2010 for a discussion of the impact of CAP reform on farms in the SW), the one-off change in GVA accounting in 2005 creates a discontinuity that does not reflect actual physical output.

However, there is no doubt that the value of agricultural production as a proportion of Cornwall’s economic output declined substantially between 1995 and 2005 even if this is exaggerated by the change in how farm payments are treated.

Meanwhile Cornwall’s contribution to UK agriculture has been fairly constant over time at close to 2% (Figure 2.4).
Although this figure does fluctuate there does seem to have been an upward trend since 2005. This could reflect a shift in relative values within agriculture in favour of livestock products or perhaps greater pressures in agriculture elsewhere in the UK from the competition for resources (land, labour).

In contrast to agriculture, the county’s fishing sector has managed to maintain its share of economic output with an increase in nominal values commensurate with the nominal growth in the value of the whole county economy.

At 2008 levels, primary food production (agriculture and fishing combined), at 3.5%, is still only a very small part of the value of Cornwall’s economy. But the sector was much more important to Cornwall than it was nationally. This is the most up to date sector GVA data available at county level so we have to look at national trends for an indication of how Cornish agricultural GVA may have fared since 2008.

Both 2009 and 2010 saw substantial falls in the underlying volume of output from the broad agriculture sector (mostly outside of the dairy and beef sectors), totalling over 8% across the two years compared to a net contraction nearer 3% for the whole UK economy. In value terms the fall has been much more dramatic as commodity prices fell back from the 2008 highs resulting in an 8% nominal fall in 2009 alone, the latest published year.

Such large likely falls in the volume and value of production since 2008 might be expected to have led to very visible signs of distress in farming. However, farm support payments are based in Euros and these have increased in value by around 20% on the back of sterling’s devaluation, so in fact net farm incomes will have been substantially protected.

Figure 2.4  Cornwall’s contribution to the UK’s primary production
2.4.2 *Modelled estimates of GVA*\(^{11}\)

The limitations of official published data mean that for other parts of the food and drink sector we must rely on modelled estimates. The modelled data shown below (Figure 2.4), is from the South West Regional Accounts (SWRA), and is based on current price data and so corresponds with the ONS data above. Even with SWRA it is not possible to get directly to this study’s definition of the core agri-food industry because at county level both retailing and wholesale are not split into component parts. So in the first instance it is possible to generate only a partial picture of the core-agri food industry comprising agriculture and food manufacturing only. This is shown for 1998-2008 in Figure 2.5.

**Figure 2.5** The Contribution of Agriculture and Food Manufacturing to Cornish GVA 1998 to 2008

![Figure 2.5](image)

Source: SW Regional Accounts

This indicates that food and drink manufacturing’s share of the economy has stayed fairly constant over time, adding roughly 3% on top of primary production. Allowing for year-on-year volatility in the latter, the two sectors combined have typically accounted for around 6% of the total value of the county’s output in recent years.

The Regional Accounts breakdown of Food and Drink manufacturing into sub-sectors is based mainly on the relevant ONS employment data. At county level this

\(^{11}\) See Appendix 1 for consideration of other sources of modelled data and more information on the Regional Accounts
data does show the sort of volatility expected from the ONS sample sizes so it is important not to read too much into the exact data for a single year. The broad picture seems to be that Meat Processing and Baking, Confectionery etc. are the main contributors to Cornwall’s food and drink manufacturing output but the data also suggests that Dairy Products may have become more important in recent years, perhaps reflecting the investment that has been associated with this sector.

In order to complete the core agri-food industry output and consider the secondary food sectors and the food related sectors it is necessary to go beyond the SWRA model in order to reach the required level of detail. This involves using *regional* relative productivity data to breakdown broad sectors, like retailing, into the smaller parts that we are interested in. Of course this adds a further layer of estimation and consequently these results should be treated with even more caution.

### Table 2.2 The GVA of agriculture and related food and drink sectors in Cornwall

<table>
<thead>
<tr>
<th>Sector</th>
<th>2008 GVA £m</th>
<th>2008 Share of total Cornish GVA (GB equivalents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture*</td>
<td>£196</td>
<td>2.9% (0.6%)</td>
</tr>
<tr>
<td>Fishing*</td>
<td>£27</td>
<td>0.4% (0.0%)</td>
</tr>
<tr>
<td>Food and Drink manufacturing.*</td>
<td>£222</td>
<td>3.3% (1.5%)</td>
</tr>
<tr>
<td>F&amp;D wholesale distribution.†</td>
<td>£68</td>
<td>1.0% (0.9%)</td>
</tr>
<tr>
<td>Retail - Specialist food†</td>
<td>£61</td>
<td>0.9% (0.4%)</td>
</tr>
<tr>
<td><strong>Core agri-food industry</strong></td>
<td><strong>£574</strong></td>
<td><strong>8.5% (3.5%)</strong></td>
</tr>
<tr>
<td>Food and beverage services†</td>
<td>£220</td>
<td>3.3% (1.9%)</td>
</tr>
<tr>
<td>Retail - non-specialists predominantly F&amp;D†</td>
<td>£221</td>
<td>3.3% (2.3%)</td>
</tr>
<tr>
<td><strong>Secondary food industries</strong></td>
<td><strong>£441</strong></td>
<td><strong>6.5% (4.2%)</strong></td>
</tr>
<tr>
<td>Accommodation†</td>
<td>£185</td>
<td>2.7% (0.6%)</td>
</tr>
<tr>
<td>All agri-food related industries</td>
<td>£1,199</td>
<td>17.8% (8.3%)</td>
</tr>
<tr>
<td>All industries*</td>
<td>£6,740</td>
<td>100.0% (100.0%)</td>
</tr>
</tbody>
</table>

*SWRA, †modelled from SWRA

Bearing these caveats in mind and while not reading too much into the exact detail of these figures, they do give us some indication of the relative size, in output terms, of the different parts of the agri-food sector in Cornwall. As Table 2.2 indicates, the core agri-food industry in 2008 contributed around 8.5% of the county’s economic output, or around £574 million. To put this into context, in its very broadest sense, that is
including restaurants, bars, supermarkets and accommodation, all agri-food related industries account for approaching 18% of total GVA. The equivalent figures for Great Britain are 3.5% for the core agri-food industry and 8.3% for all agri-food related sectors.

These percentages are obviously significantly different from the results for employment, indicating large, but not surprising, variations in labour productivity. Agriculture accounts for double the amount of employment of Food and Drink manufacturing but apparently a smaller value of output as measured in GVA. Some of this is likely to be accounted for by the levels of part-time working in different sectors. Regional Accounts data can be used to calculate GVA output per full time equivalent which removes these distortions (see Table 2.3). This shows quite wide variations, with particularly low productivity in agriculture and very high productivity in the much more capital intensive fishing industry. Productivity is also well below average in all of the service elements of the agri-food chain. Food and Drink manufacturing productivity is at the all-industry average level for Cornwall but well below the sector level for the South West and Great Britain. This is probably due in part to the mix within the sector but more generally is likely to reflect the scale and capital intensity of the enterprises.

### Table 2.3  GVA per fte, 2007 to 2009 average

<table>
<thead>
<tr>
<th></th>
<th>GB</th>
<th>SW</th>
<th>Cornwall</th>
</tr>
</thead>
<tbody>
<tr>
<td>All industries</td>
<td>49,000</td>
<td>41,000</td>
<td>32,000</td>
</tr>
<tr>
<td>Core agri-food sectors:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>16,000</td>
<td>16,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Fishing</td>
<td>49,000</td>
<td>54,000</td>
<td>51,000</td>
</tr>
<tr>
<td>Food and Drink manufacturing</td>
<td>52,000</td>
<td>45,000</td>
<td>31,000</td>
</tr>
<tr>
<td>Food and drink Wholesale distribution</td>
<td>51,000</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>Retail of food in specialised stores (52.2)</td>
<td>32,000</td>
<td>25,000</td>
<td>not available</td>
</tr>
<tr>
<td>Retail sale in non-specialised stores (52.1)</td>
<td>32,000</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Hotels and catering</td>
<td>26,000</td>
<td>24,000</td>
<td>25,000</td>
</tr>
</tbody>
</table>

**SWRA**12

Although the detail is not complete, it appears consistent with the generally weak labour productivity in Cornwall. In sectors of significant employment, productivity is

---

12 Based on 2007-09 average to smooth out year-on-year variation
either weak relative to the GB sector equivalent, such as food and drink manufacturing, or weak relative to the Cornish all-industry productivity, such as Hotels and Catering or both like Agriculture. This suggests that further investment to increase the labour productivity of Cornwall’s agri-food sector could help improve Cornwall’s poor labour productivity when measured against other equivalent English (NUTS3\textsuperscript{13}) areas (see Table 2.4).

### Table 2.4 Measures of labour productivity in Cornwall and the Isles of Scilly, 2008

<table>
<thead>
<tr>
<th></th>
<th>Index of labour productivity (England = 100)</th>
<th>Rank position out of 93 NUTS3 areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVA per head of Population*</td>
<td>63.2</td>
<td>84</td>
</tr>
<tr>
<td>GVA per job filled\textsuperscript{†}</td>
<td>68.1</td>
<td>92</td>
</tr>
<tr>
<td>GVA per hour worked\textsuperscript{†}</td>
<td>70.4</td>
<td>92\textsuperscript{14}</td>
</tr>
</tbody>
</table>

\*Dec 2010 sub-regional GVA release  
\textsuperscript{†}Sub-Regional Productivity, September 2011, October 2011

#### 2.5 Monetary value of the agri-food sector

Turning now to the monetary value of Cornish agriculture and its various sub-sectors, Table 2.5 highlights the importance of dairying in particular and also beef to a lesser extent. In total the farm gate value of Cornish agriculture in 2010 is estimated to be £293.6m compared to £199.4 in 2005 although it should be noted that these figures do not take inflation into account. Defra now publish data for Commercial Holdings only but for 2009 we have presented data for all holdings and commercial holdings only so that the impact of the new definition can be seen.

\[13\] Upper tier authorities or groups of lower tier authorities (unitary authorities or districts).  
\[14\] Blackpool is 93rd
Table 2.5 The monetary value of the different agricultural sub-sectors in Cornwall

<table>
<thead>
<tr>
<th></th>
<th>2009 All holdings</th>
<th>2009 Commercial holdings* only</th>
<th>2010 Commercial holdings only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crops</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other arable crops</td>
<td>£1,600,000 1%</td>
<td>£1,600,000 1%</td>
<td>£1,800,000 1%</td>
</tr>
<tr>
<td>Potatoes</td>
<td>£16,900,000 6%</td>
<td>£16,400,000 6%</td>
<td>£20,400,000 7%</td>
</tr>
<tr>
<td>Horticulture</td>
<td>£26,600,000 10%</td>
<td>£23,500,000 9%</td>
<td>£30,300,000 10%</td>
</tr>
<tr>
<td></td>
<td>£45,100,000 16%</td>
<td>£41,500,000 16%</td>
<td>£52,500,000 18%</td>
</tr>
<tr>
<td><strong>Livestock</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef</td>
<td>£72,500,000 27%</td>
<td>£71,900,000 27%</td>
<td>£72,600,000 25%</td>
</tr>
<tr>
<td>Dairy (milk)</td>
<td>£122,000,000 45%</td>
<td>£121,000,000 46%</td>
<td>£129,600,000 44%</td>
</tr>
<tr>
<td>Sheep</td>
<td>£15,400,000 6%</td>
<td>£14,800,000 6%</td>
<td>£14,800,000 5%</td>
</tr>
<tr>
<td>Pigs</td>
<td>£11,900,000 4%</td>
<td>£10,100,000 4%</td>
<td>£11,200,000 4%</td>
</tr>
<tr>
<td>Poultry</td>
<td>£6,500,000 2%</td>
<td>£5,900,000 2%</td>
<td>£12,900,000 4%</td>
</tr>
<tr>
<td><strong>Total Value of Farm Produce</strong></td>
<td>£273,400,000 100%</td>
<td>£265,200,000 100%</td>
<td>£293,600,000 100%</td>
</tr>
</tbody>
</table>


Our previous reviews have included an estimate of the value of the Cornish food economy based on a combination of turnover values for the processing and manufacturing sector, farm gate/fish landing values, valued added in the fish sector and estimated tourist spend on food and drink. It is our opinion that the GVA analysis above, despite the caveats about the quality of some of the data, is a more robust and useful indicator of the scale and contribution of the Cornish food economy. Nevertheless, for comparative purposes we have also, as far as possible, estimated the turnover of the Cornish agri-food sector.

In 2006 we estimated the turnover of the Cornish agri-food sector to be £1.5 billion. Part of this figure included an estimate of the turnover of Roach Foods. We have been unable to access an equivalent 2010 turnover figure for this review. Consequently rather than compare of current results with the figure of £1.5 billion, removing the Roach Foods element from our 2006 estimate leaves an estimated value of the Cornish agri-food sector of approximately £1.25 billion in 2006. It is this figure that is more useful in terms of a like-for-like comparison.

Clearly Cornwall hosts a number of major food processing businesses. However, for the purpose of comparison with our previous estimates the major processing
businesses in the county\textsuperscript{15} have a turnover of £592.5 million (compared to our estimate of £602.5 million for these same businesses in 2006). As we have seen, the total value of farm produce at the farm gate is £293.6 million. The landing value of the Cornish seafood sector is estimated to be £27.7 million. If it is assumed that the relationship between the value of the landed catch and the seafood processing and distribution sector has remained constant then seafood processing and distribution is estimated to be £37 million. Finally, estimated tourist spend on food and drink in Cornwall is £450.8 million (SW Tourism 2010). This is a much larger figure than in our previous review as it includes £183.2m spent by day visitors. Taken together these figures indicate that the turnover of the Cornish agri-food sector is currently around £1.4 billion.

\textsuperscript{15} Davidstow Creamery, Ginsters, Kensey Foods, Tamar Foods and St Merryn.
3 The dairy sector

3.1 Introduction
Cornwall’s climate gives it a competitive advantage in growing grass and livestock farming accounts for 74% of the total value of farm produce at the farm gate, with dairying alone accounting for 44%. In the period since 2006 the dairy sector has seen a continuation of the on-going change in scale of farm production. At the same time farmgate milk price rises have accelerated and downstream consolidation in Cornwall has increased with some smaller processors being purchased by larger businesses operating in the area. The Cornish dairy sector remains a highly dynamic area of food production.

3.2 The size and structure of the dairy sector
The volume of milk quota owned by producers in the county has increased to close to 600 million litres since 2006, confirming that Cornish dairy producers are committed to the sector. In addition to the trend of rising quota since 2004/05, Figure 3.1 indicates that the previous decline in the dairy breeding herd has levelled out and even begun to increase slightly, while milk delivered has remained largely stable.

Up to 2004/05 milk production in the UK was very close to the total quota with punitive surcharges in place discouraging over-quota production and reasonable lease values ensuring that unused quotas was let. Since then UK production has fallen below the quota ceiling and quota values have dropped to near zero, as quotas have been progressively increased in preparation for their eventual abolition in 2015. So historically, dividing the net quota by the June Agricultural Survey breeding herd numbers gave an estimate of yield per cow which could be compared to the published figures in Agriculture in the UK (AUK). After that point data on actual milk delivered is available and this provides a better basis for estimating yield. As Figure 3.2 shows, Cornish milk yields continued to rise until around 2005. Since then they have plateaued or increased only marginally.
Figure 3.1  Dairy quota vs. dairy breeding herd

Source: Defra data

Figure 3.2  Implied dairy yield

Source: Defra data
Figure 3.3 provides evidence of an alteration to the decades old trend of declining number of dairy animals. Since 2005 the decline has largely levelled off and most recently there has been a small increase in the number of dairy cows.

**Figure 3.3  Cornish dairy herd, 1981 to 2010 (1990=100)**

Source: Defra data  
*The right hand axis and red percentage figures in the chart show the year-on-year changes.

At the same time, the trend of concentrating dairy production into fewer larger herds is continuing and possibly accelerating. As figure 3.4 indicates, over a relatively short time period the proportion of dairy breeding animals in herds of 200 and over has gone from less than 15% to 30%. With some exceptions, small dairy herds are vanishing. Figure 3.5 shows that Cornwall is still a little behind England in terms of herd concentration into the largest size bands but that the gap closed between 2004 and 2007.
Figure 3.4  Cornish dairy herd size distribution: 1999, 2004 and 2007

Source: Defra data

2007 was the last year this data was produced. From 2010 the Defra June Agricultural survey published data will exclude non-commercial holdings, which for dairy means bovine herds of 10 or less. When this threshold was applied to the 2009 survey data the dairy breeding herd was reduced by 557 or 0.8%.

Figure 3.5  Cornish and national dairy herd size compared

Source: Defra data
3.3 *Routes to market*

Distance from population has always driven the dairy sector in Cornwall, with an emphasis on cheese production from Cornish milk. This continues today although there are now two large scale processors manufacturing liquid milk in the county, with one recently expanding production facilities.

In contrast to years of depressed prices, recently average UK milk prices have seen dramatic changes in response to the strengthening market for milk commodities (see Table 3.1).

<table>
<thead>
<tr>
<th>Table 3.1</th>
<th>UK average milk prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2006</td>
</tr>
<tr>
<td>Average UK milk price (p/litre)</td>
<td>17.95</td>
</tr>
</tbody>
</table>

Source: DairyCo

In Cornwall two longstanding first purchasers of milk; Milk Link and Dairy Crest continue to purchase the vast majority of milk produced in the county (> 95% of total Cornish milk production). Both companies are increasing their intakes of milk, which would be expected given the rise in the county’s milk quota ownership. Milk price trends for these two purchasers over the past four years (Table 3.2) largely mirror the national position shown in Table 3.1.

<table>
<thead>
<tr>
<th>Table 3.2</th>
<th>Milk company buying prices in Cornwall 2007-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year to July 2007 (ppl)</td>
<td>Year to July 2008 (ppl)</td>
</tr>
<tr>
<td>Dairy Crest Davidstow average price</td>
<td>18.82</td>
</tr>
<tr>
<td>Milk Link Manufacturing average price</td>
<td>17.76</td>
</tr>
</tbody>
</table>

Source: DairyCo (Prices exclude bonuses and capital levies etc.)

Over the past four years consolidation has occurred in the collection of milk from farms with examples of this including organic milk from both Milk Link and OMSCo members now being collected by OMSCo; Milk Link collect and deliver milk to Trewethen Dairy for Arla, Milk Link provide a milk brokerage service to Wiseman’s
and Milk Link manage and deliver milk from a bespoke group of producers to Rodda’s through their current partnership in milk.

Consolidation has also occurred in the milk processing sector with the acquisition by Milk Link of Cornish Country Larder to provide the co-op with a soft cheese manufacturing base in the county and through the takeover of Bradley’s facility by Trewethen Dairy to increase their customer base.

Despite this consolidation some 170 million litres of milk leave the county annually, travelling to Devon, Somerset and occasionally Wiltshire for processing into cheese, long life milk, yoghurt and milk powder. In addition a similar volume comes into the county each year destined for cheese manufacture.

The vast majority of the milk which is retained in the county for processing is transformed into premium hard and soft cheeses. These cheeses are sold across the UK to a variety of buyers including the mainstream multiple retail chains as well as more locally in Cornwall. The current economic climate has hit sales of premium cheeses with consumers trading down or needing encouragement to purchase premium products. This has hit cheese makers’ margins at a time when production costs are rising for all inputs and the ability to pass on price rises to retailers is limited. One upside of the current economic climate is to ensure a steady flow of quality staff for milk processors in Cornwall. It is also interesting to note that Dairy Crest, Cornwall’s major cheese processor, has recently created a new range of cheddars – the ‘Davidstow’ brand - that emphasise and celebrate their Cornish origin, demonstrating that the value of Cornish provenance is sufficiently significant for it to be used as a marketing tool on products that are sold mainstream nationally as well as the products of the smaller artisan producers.

Outside the mainstream milk processors there are a number of niche milk processors in Cornwall often manufacturing ice cream in the county, some using organic milk. These processors have helped to enable the county to grow an image for milk products with tourists and the general population alike which contributes to the name of Cornwall being a very useful marketing attribute. The vast majority of organic milk though is processed outside the county, predominantly in Somerset, being used for yoghurt and liquid milk manufacture.

The online survey of Cornish food producers and processors included 11 dairy producers/processors. These businesses employ a variety of routes to market with direct sales via own shop, farmers market, fairs etc. and direct sales to independent retailers being the most common routes (although this doesn’t necessarily reflect the volume of produce sold through these routes). These dairy businesses reported that on average 64% of their sales were made within Cornwall, 20% within the region and 16% nationally, reflecting the movement of milk and dairy products described above.
3.4 Trends, developments and critical issues

This highly important sector of the Cornish agri-food economy has, as would be expected, been impacted by the recession and on-going economic downturn, although as with many sectors, the story is a complex one. Several of the businesses we interviewed pointed to relatively stable volumes of sales but squeezed margins, as increasing costs were not being passed on to price-sensitive consumers. There are some indications that, for some businesses, the volume of sales through the wholesale market is declining.

The impact of increasing input costs, particularly energy costs, is an important new trend since our last review. In part this is leading to a cost-price squeeze (hence declining margins) but it is also stimulating interest in alternative energy sources. For instance, businesses interviewed had already installed a biomass boiler and solar panels and there were plans for a bio-digester. Others were still exploring options for renewable energy solutions.

Despite the very real economic challenges being faced by many businesses in this sector just over half of the dairy businesses responding to the online survey felt that the current economic position of their business and the prospects for the next 3 years were “good” or “excellent”. Nevertheless, the future is likely to see further change with businesses seeking to grow sales out of county, particularly in the (perceived) lucrative London and South East markets, but also further afield. Improvements in efficiency (to help offset rising costs) will be important, as will new product development. Not surprisingly, the business support needs identified by this sector include product development, capital investment, sales and marketing and transport and distribution, particularly in terms of accessing more remote markets.
4 Seafood

4.1 Background

The Cornish seafood industry is of significance nationally as well as within the county. In 2009, based on the quantity in weight (tonnes) of live weight catch by UK vessels, Newlyn was ranked as the UKs 13th largest port. The live weight catch was recorded at 8,400 tonnes with a financial value of £16.5m (MMO fisheries stats). However, in terms of financial value Newlyn was actually ranked 6th in the UK, which demonstrates that although the landed catch weights are lower the catch is of higher value.

In total, 11,905 tonnes of fish were landed in Cornish fishing ports in 2009 (MMO) which equates to a turnover of £27.7m. The change from 2006 figures demonstrates a small reduction in both the volume and value of landed catch which seems to support industry trends. Table 4.1 identifies the Cornish fishing ports that landed the highest value of catch, in financial terms, in 2009.

Table 4.1 Ports in Cornwall and the Isles of Scilly with the highest value catch, 2009

<table>
<thead>
<tr>
<th>Landing Port</th>
<th>Landed Weight (Tonnes)</th>
<th>Most Common Species</th>
<th>Total Landed Value (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newlyn</td>
<td>7,120.76</td>
<td>Monks, Sole, Megrin, Scallops, Crab</td>
<td>17,243,104</td>
</tr>
<tr>
<td>Looe</td>
<td>774.80</td>
<td>Lemon Sole, Monks, Scallops, Squid</td>
<td>1,788,242</td>
</tr>
<tr>
<td>River Fal</td>
<td>809.73</td>
<td>Scallops, Anchovy, Monks</td>
<td>1,606,896</td>
</tr>
<tr>
<td>Mevagissey</td>
<td>713.39</td>
<td>Pollack, Scallops, Mackerel</td>
<td>1,458,926</td>
</tr>
<tr>
<td>Padstow</td>
<td>473.78</td>
<td>Lobsters, Crab, Turbot</td>
<td>1,438,771</td>
</tr>
<tr>
<td>Isles of Scilly</td>
<td>66.853</td>
<td>Lobsters, Crabs, Crawfish, Pollack</td>
<td>201,134</td>
</tr>
</tbody>
</table>

16 This chapter draws on a range of sources but is largely a result of the knowledge and insight of Nathan de Rozarieux.

4.2 Employment

The Cornwall Inshore Fisheries & Conservation Authority (CIFCA) 2009 survey of boats and ports revealed that there were 581 registered boats. Of these, 83% were 10m or smaller. There were 867 crew members employed on the boats, and of this number 67% were employed by boats 10m or smaller. The figure for employment seems to vary broadly between different sources however. This is likely to be attributable to the large number of seasonal staff employed in the industry. Some sources identify seasonal staff to be in excess of 100. Due to the time of year at which the CIFCA survey was conducted (December) 867 is likely to be a conservative figure. Cornwall Sea Fisheries Committee (CSFC) survey (2009) identified that there were a total of 601 registered fishing vessels employing 1028 people across Cornwall.

4.3 Key Trends

4.3.1 Forms of fishing becoming more or less dominant

The mainstay of the Cornish fleet in terms of capacity (tonnage), engine power (kw) and value of landings is the beam trawling sector which, although has now reduced slightly in size to 20 vessels, still accounts for approximately 40% of the value of fish landed (Channel & West Sustainable Trawling Group figures, 2009). Due to the larger size of these vessels – typically 24-28 metres in length - they are less restricted by weather and therefore provide the market and onshore processing sector with an almost continuous supply of fish. This is seen as essential for processors who can quickly lose market share if they are unable to supply required volumes consistently to customers. The main target species of these vessels are monkfish, megrim, Dover sole and cuttlefish, along with a by-catch of twenty to thirty species ranging from the high value species such as turbot and brill to the lower value pouting and ling.

The gill-netting fleet in Cornwall remains the largest in the UK with 12 vessels of between 15 and 20m in length. The number of vessels has decreased slightly over time but the average age of these vessels has reduced as a number of newer vessels have joined the fleet (to replace older ones) in recent years. The main target species are pollack, hake, turbot and monk.

The inshore trawling fleet of 10-12 metre, so-called, ‘dayboats’ has remained relatively stable but with ports such as Looe seeing a slight reduction in the number of vessels as the port’s successful skippers have upgraded to larger vessels which cannot easily work from the tidal harbour. Catches of these vessels are highly mixed (up to 40 species in one day) and vary considerably during the seasons. For example, catches of John Dory in the summer, squid in the autumn and whiting in the spring.

The sardine ‘ring-net’ sector has perhaps seen the most significant growth in landings and number of vessels. In 2006 only four vessels were equipped to fish for sardines with ring-nets while there were 8 landing just under 2000 tonnes in 2010
(Cornish Sardine Management Association data). Despite the relatively high costs of building or converting vessels for this mode of fishing it has been helped by the growing market demand for the PGI status, Marine Stewardship Council (MSC) accredited ‘Cornish Sardines’ and the availability of European grant aid (through Objective One and convergence funding) to support investments by processors and catchers.

The other growth sector has been the increase in the number of under 12m vessels fishing with handlines for pollack. Although this has been a feature of the Cornish inshore fleet for many years this recent growth in activity has been spurred by pollack being widely reported in the media as a sustainable alternative to cod. This has resulted in an increased demand amongst local processors with the knock-on effect of higher prices being seen on local auction markets. Operating costs for this mode of fishing are also low so profits margins are attractive.

Cornwall has the largest fleet of under 10 metre vessels in the UK. These mostly operate within 12 miles of land and are polyvalent in their activities, often switching between gear types in the same day. For example, potting, netting and handlining, with potting for crabs, lobster and spider crabs being by far the most prevalent.

4.3.2 Increase / decrease in average size of vessel
There has been a slight decrease in the average size of vessel although the trend of vessel owners ‘downsizing’ from over 10 metre vessels to the more lightly regulated under 10 metre vessels has abated since a tougher management regime has been put in place for these smaller vessels. A Defra de-commissioning scheme for under ten metre vessels also permanently removed a number of vessels from the inshore (under 10m) Cornish fleet in 2008. It is likely that the average age of the fleet has decreased as older, inefficient vessels are scrapped / sold to make way for newer more efficient ones.

4.3.3 Increased / reduced demand for specific species
The demand and market price for pelagic species such as mackerel and sardines has increased as the health benefits of eating ‘oily’ (i.e. high in omega-3) fish have become more widely promoted by the food media and by national retailers.

Pollack has seen the most noticeable increase in demand. It has traditionally been a firm favourite of the French, particularly of the Bretons, but growing media fears about fish sustainability have helped boost demand and therefore price of pollack which has been seen as a substitute for cod. This has benefitted the Cornish fleet being the main catchers of pollack in the UK, landing over 1000 tonnes in 2010, mostly using gill-nets but also with handlines.

The fish species to see a considerable decline in demand are hake and megrim. Until recent times up to 90% of both species were exported to Spain (un-processed) where they commanded high prices. However, since 2008 and the spread of the global recession Spanish consumers have switched to cheaper species of fish,
typically imported from South America. The auction market / first sale price for both species has dropped with hake being the worst affected as processors struggle to find alternative markets for the fish in the UK.

In 2011 the Channel 4 ‘Fishfight’ season led by celebrity chef Hugh Fernely-Whittingstall encouraged consumers to broaden the range of species to reduce fishing pressure on more well-known mainstays such as cod and haddock. Demand for pouting and gurnard in particular increased significantly in the following weeks and although this peak demand has dropped off, sales and prices of these species are at a higher level than before the ‘Fishfight’ programmes.

Catches of cuttlefish and haddock have also significantly increased in recent years triggering a supply-driven increase in sales by processors who have adapted rapidly to the changing catch composition. In 2006 151 tonnes of haddock were landed at Newlyn with a value of £238,000. By 2010 this had grown to 379 tonnes valued at £511,000. Over the same period the cuttlefish has also grown in size and value. In 2006 205 tonnes were landed with a value of £254,000 but by 2010 this had grown to 596 tonnes which was worth £1.1m (MFA, Fish Stats)

The combined result is that most species of fish and shellfish landed in Cornwall continue to be in high demand and this has been reflected in higher average prices being seen at fish auctions across the SW in 2010 and 2011.

Table 4.2 identifies the values of landed fish (in tonnes) for the year 2009 for the top 8 fish species in Cornwall and the IOS in terms of financial value.

<table>
<thead>
<tr>
<th>Species</th>
<th>Landed Weight (Tonnes)</th>
<th>Landed Value (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monks</td>
<td>515.06</td>
<td>4,338,047</td>
</tr>
<tr>
<td>Scallops</td>
<td>1,003.67</td>
<td>2,560,796</td>
</tr>
<tr>
<td>Crabs – mixed</td>
<td>1,895.29</td>
<td>2,462,557</td>
</tr>
<tr>
<td>Sole</td>
<td>269.39</td>
<td>2,356,669</td>
</tr>
<tr>
<td>Pollack</td>
<td>849.14</td>
<td>2,053,493</td>
</tr>
<tr>
<td>Megrim</td>
<td>646.71</td>
<td>1,820,643</td>
</tr>
<tr>
<td>Hake</td>
<td>266.69</td>
<td>673,707</td>
</tr>
<tr>
<td>Turbot</td>
<td>111.63</td>
<td>989,292</td>
</tr>
</tbody>
</table>

Source: MMO Data for 2009
4.3.4 Variations in routes to market

An increasing feature among the larger vessels in the fleet is the shift away from selling catches by auction at the vessel’s ‘home port’. For instance, ten years ago approximately 90% of catches of the Newlyn fleet would have been auctioned at Newlyn market. In 2011 this figure is closer to 50% as vessels either land directly \(^{18}\) into French auction markets (Le Guilvinec, Roscoff and Lorient) where demand for species like pollack or monkfish results in a higher price than can be realised at Newlyn; or, choose to land in Newlyn but overland (i.e. by road) their catches for auction at Plymouth market. The market in Plymouth has an electronic ‘clock’ auction which can be accessed by buyers/processors remotely via the internet often permitting up to 70 buyers to participate in the auction. This potential increased competition amongst buyers, transparency and overall service provided is attractive to fishermen who anecdotally suggest that prices for certain species has improved profitability of their businesses.

A small but increasing number of inshore skippers have also chosen to by-pass the traditional auction market at Newlyn in favour of either landing to the auction at Plymouth or selling direct to larger processors in Cornwall. These processors will often collect catches negating the need for fishermen at the more remote ports in Cornwall to drive catches to auction markets in Newlyn, Looe or Plymouth. The vast majority of sales of shellfish such as crabs, lobster and spider crabs are through direct sales to visiting French, Spanish or Portuguese via lorries which visit every week during the summer months; the remainder being sold to local shellfish processors. A very small number of fishermen sell their catches directly to restaurants or direct to the public at car-boot sales and farmers’ markets although this can be difficult for fishermen as they cannot easily plan their harvesting.

4.3.5 Changes in market demand

Increased media attention and active campaigning by environmental NGOs (eNGOs) has further driven demand for ‘sustainable’ seafood in the multiple retailer sector. The fish sourcing decision trees of these companies can be complex but often judge sustainability according to whether a fishery has the Marine Stewardship Council (MSC) eco-label or its score on the Marine Conservation Society’s (MCS) www.fishonline guide. Cornish catchers and processors are well positioned in this regard as many of the species landed in Cornwall are deemed to be fished at, or close to, sustainable levels.

In the food service sector (pubs, restaurants and hotels) high quality is taken as a given and here demand is mostly for ‘pan ready’ meal solutions of highly controlled portion sizes (see below). A number of Cornish processors remain active in this sector supplying high quality fish and seafood throughout the UK.

\(^{18}\) Of the fish going abroad direct from vessels as much as 75% is landed in Newlyn and being shipped by road so these landings will be captured as landed at Newlyn.
The quest from both multiple retailers and foodservice for continuity of supply and portion sized fish has resulted in a significant increase in farmed bass and bream from countries like Turkey and Greece being bought and sold by many Cornish fish processors.

Overall, quality and price, more than sustainability, remain the key factors in the export markets.

4.3.6 Value added processing

Traditionally, nearly 70% of fish landed in Cornwall has been exported (simply whole or gutted) out of the UK to continental buyers but this figure has reduced in recent years as demand in the UK (particularly out of home eating) has increased. This is largely due to changing consumer tastes, with customers becoming increasingly influenced by celebrity chefs and through greater awareness of the health benefits of eating fish. At the same time the economic downturn has reduced consumer buying power in Spain, in particular.

UK consumers are well known for their phobia of whole fish (eyes, bones etc) so Cornish processors supplying the retail or foodservice sectors have increased primary and secondary processing of fish (i.e. filleting and portioning). With the assistance of European grant aid through Objective One (FIFG) a number of Cornish processors installed vac-packers and blast freezers to help ease peaks and troughs in supply and improve availability to customers of filleted, portion size fish using frozen fish to supplement supply in times of low availability of fresh product due to bad weather or a highly seasonal fishery. This is most apparent in the Sardine fishery where the main catching season (October to February) precedes the main sales demand (May to September – BBQ season).

Other more specialist processes such as scallop shucking and crab picking are still carried out in Cornwall by a small number of highly specialised, well established companies supplying retail, wholesale and food service outlets throughout the UK and Europe.

4.4 External factors expected to affect the development of the sector in coming months / years

- **Fuel** – the price of fuel is the most significant external factor which impacts the whole supply chain but more acutely affects the catching sector as in some cases it can account for 40% of a vessel’s operating costs. Crucially though, selling at auction (as most do), fishermen are unable to pass on the increased cost of fuel to buyers as would be the case in other industries.
• **Common Fisheries Policy (CFP) reform** – a 10 year review of the CFP is currently underway with a new, reformed CFP being implemented from 1 January 2013. Early indications are that it will bring with it both opportunities and threats. Increased regional management powers and support for fishing communities are likely to help the industry in Cornwall, while the call for an international trade in fish quotas will be seen as a significant threat to increased competition for quotas from Spain and Holland.

• **Global economic recession** – fish landings in Cornwall are made up of a highly diverse range of species, many of which are perceived as ‘high value’, often reaching £10/kg at the first sale. Therefore, as the grip of economic recession continues to be felt there is concern that consumers switching to lower value species may erode demand for fish landed in Cornwall.

• **Marine Conservation Zones (MCZs)** – through the UK Marine Act the UK Government is committed to protecting a wide range of marine habitats, species and undersea features. Although the local fishing industry is supportive of the broad thrust of this policy the detailed implementation of the Act is deeply concerning to the less mobile inshore fleet who fear they will become excluded from traditional, local fishing grounds and are not equipped to fish further offshore safely.

4.5 **The impact of changes in public support on the performance of the industry**

Overall, changes in the level of public support has had little impact, as the fisheries sector was at best only lightly supported by the public sector relative to other food producers. Furthermore, the main sector body – Seafish – is in part funded by an industry levy which is fixed by an act of parliament. European funding in the form of the European Fisheries Fund (EFF) continues to support investments within all parts of the fish supply chain in Cornwall.

In Cornwall, perhaps the biggest impact of public sector cuts has been the effect on the sector support structure of Seafood Cornwall which currently is without both funding and staff.

4.6 **Critical issues for the future**

4.6.1 **Catching sector**

In coming years the catching sector will face challenges on a number of fronts but ultimately the aim will be the same as always – to remain profitable. Already there are signs that fishermen are becoming much more focussed on selling their catches and using social media tools like Twitter, and a number of
skippers are trying to communicate direct to consumers. Within such a highly regulated environment there is no way of increasing catches, so it is logical to suggest that the focus will increasingly be on growing profits either through shortened supply chains or greater promotions. Due to the volumes caught and length of time at sea the responses of the inshore and offshore fleets may be different, for example:

- **Inshore** – building on the current success of one or two visionaries within the inshore sector, it is likely that opportunities for inshore fishermen (and their families) to shorten supply chains through the formation of co-operatives or community interest companies (CICs) will be explored and implemented under the EFF Axis 4 Fisheries Local Action Groups (FLAGs) launched at the end of November 2011. Such groups will aim to sell ultra-fresh product direct to top end restaurants for a premium return.

- **Offshore** – the volumes landed by the offshore fleet and the short periods of rest time ashore will limit the ability of these skippers / owners / crews to sell their own catches. However, trends in recent years have shown that these fishermen have not been hostage to tradition and have (and will continue) to use modern communication capabilities (satellite, phone, fax and broadband) to secure the best time and place to land their catches to achieve the highest price – whether that be within the UK or in Europe.

4.6.2 **Processing sector**

There has already been some rationalisation of fish processing businesses in Cornwall and if fish prices continue to increase margins will inevitably become squeezed. At this point the efficiency (i.e. based on the principles of lean manufacturing) and financial stability (limiting risk of non-payment / bad debts) of a business will be crucial. Sound management and the ability to attract, train and retain a highly skilled workforce will also remain important factors.

4.7 **Other long-term patterns / trend on Cornwall scale**

- **Contracting fleet** – due to an increase in abundance of many stocks coupled to high market prices, most sections of the fleet are currently economically viable; however, many of the larger vessels within the Cornish fleet remain on a knife-edge. A further, prolonged spike in the price of crude oil would result in the contraction of the fleet which would have a knock-on effect of reduced volumes available to the onshore processing sector.

- **Compartmentalisation of fleet** – increasing regulation of the catching sector has had the effect of compartmentalising the fleet, reducing the flexibility of vessels to fish for different species or use different gear types. Vessels become less able to adapt to natural fluctuations in abundance of fish stocks – a factor which has been important to the Cornish fleet in the past.
• **Fish stocks on the increase** – despite the gloomy pronouncements of mainstream media headline writers many of the key fish stocks fished by the Cornish fleets are showing positive trends of increased abundance year-on-year as the conservation benefits of a reduced fleet, selective gears and closed spawning grounds become more apparent.

• **Shortage of skilled workforce** – both the offshore and onshore sectors of the fish industry in Cornwall recognise that skill shortages will be a long-term challenge as skills such as net-mending or fish filleting cannot simply be trained overnight. A more strategic and properly financed approach is needed to ensure this issue does not become a critical threat.
5 Horticulture

5.1 Introduction

In many ways the geography and climate of Cornwall give it a distinct advantage in horticultural production with a longer and importantly, an earlier growing season than many parts of the UK. Within the South West, Cornwall is the largest producer of potatoes and brassicas, predominantly cauliflowers (see Table 5.1). For both crops the county is famed for its early season production producing the vast bulk of the UK’s supply of January harvested brassicas and the bulk of early season new potatoes as a result of the earlier seasons in the county. However in the past two years very cold weather has severely reduced the ability of Cornish growers to supply early brascica crops into retail outlets such that supermarkets are considering alternative suppliers which would have a devastating impact on the sector.

Within the county there is a small area of onions grown for local pasty manufacturers. However, to date the prevailing weather conditions have resulted in a higher cost of production than elsewhere in the country despite the fact that the county has soils which are not infected with onion parasites. There is a significant opportunity to increase onion production for local use in pasty manufacture if the climatic conditions could be mastered and if adequate storage were available. This is because of the relatively short shelf life of onions post peeling and slicing which is advantageous for local processors.

Cornish supply chains have developed around entrepreneurial growers who have invested in packing and storage facilities. This is especially true for brassicas and to a much lesser extent for potatoes where the majority of Cornish potatoes move to processors and packers outside the county. However, a new packhouse is to be built in 2012 by Morrisons near Bridgewater which will require a range of field vegetables. This represents a new opportunity for Cornish growers and for some a new customer.

Accessing accurate data on primary production in the horticulture sector is not easy. For instance, Defra data only records one crop per field per year, whereas in reality that same field may be used for growing two crops. As a result, the main focus of this chapter is on the two key crops of potatoes and brassicas, although the discussion of trends and developments is based on data from a broader range of fruit and vegetable growers, processors and distributions that took part in the online survey and or interview survey.
Table 5.1  Cornish vegetable production

<table>
<thead>
<tr>
<th>Crop</th>
<th>SW (Ha)</th>
<th>Cornwall (Ha)</th>
<th>Cornish production (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes</td>
<td>7,190</td>
<td>4,391</td>
<td>42,000</td>
</tr>
<tr>
<td>Brassicas</td>
<td>3,009</td>
<td>2,800</td>
<td>120,000 *</td>
</tr>
</tbody>
</table>

Source: 2009 PCL information and personal communication
* Estimate based on likely area in 2011 and a yield of 32 T/ Ha

5.2 Potato production

Early season Cornish potatoes account for the great majority of the national domestic supply of early potatoes (see Figure 5.1). Cornwall is also a significant producer of later potato varieties and by the end of the season the overall contribution ranges between 21% and 26%. Nevertheless, these very early marketings account for only a tiny proportion of the total Cornish early crop with at least 80% of the tonnage coming through after week seven (see Figure 5.2). However, the much higher prices earlier in the season (See Figure 5.3) means that the smaller early crop earns a significant share of the total value of Cornish potato production (although this proportion is very variable: 36% in 2008, 30% in 2009 but 46% in 2010). So although the early crop is associated with lower yields the gross return per hectare is much better than the whole season average.

Figure 5.1  Cornish contribution to GB supply of early potatoes*

Source: Defra data.  *Week 0 is everything up to the 30th of April
5.3 The potato supply chain

Whilst the potato area in Cornwall is more than 50% of the total SW area; production is a smaller proportion of regional production as the county grows a higher percentage of early potatoes than other counties in the region. A relatively small proportion of the total crop of potatoes are sold direct to processors in Cornwall and regional retail, with larger scale growers supplying businesses such as Greenvale, Branstons and Gamber Produce for washing and retail packing and onward to other potato processors in the Midlands and East of England. There have been two large investments in potato storage facilities, supported by the RDPE, in the county in the
last 2 years. There are however, no large scale potato manufacturing sites within the South West which leads to additional transport costs for produce from the county and gives Cornish businesses an inherent disadvantage for main crop potatoes where other parts of the country can produce potatoes closer to manufacture sites. Vegetable processors in Cornwall will utilise Cornish produce when available and will in most instances procure direct from growers.

5.4 The brassica supply chain

In recent years there has been significant consolidation within the sector with production now centred on three key packhouses in the county which have some direct sales contracts with retailers and also supply category managers for other retail customers. It has not been possible to accurately identify the proportion of total brassica production sold direct from Cornwall into the retail sector, partly because it is such a dynamic marketplace and also to maintain confidentiality.

Figure 5.4 outlines the routes to market for Cornish brassica crops and highlights the complexity of retail supply routes:

Figure 5.4 The Cornish brassica supply chain

![Diagram of the Cornish brassica supply chain](image-url)
5.5 **Trends, developments and critical issues**

With the exception of large scale growers, the county’s horticulture sector is largely focused on supplying the Cornish market. For instance, on average those horticulture businesses responding to the online survey made 90.5% of their sales within Cornwall. The future may see some limited expansion to markets in London but distribution is an issue. At production level in the brassica sector consolidation has occurred, moving the cost of production to grower-packers in the county through short term land rental agreements. In the past the land owners would have grown the crop. More recently however, they have chosen to retain land ownership but avoid the risks inherent in the marketplace from growing the crop itself. Another development in terms of the supply chain is that some organic producers are reported to have stopped their own small box schemes and now grow to sell to the larger box schemes and distributors.

Some businesses reported increasing competition from imports, particularly over the last two years when poor growing conditions have prevailed. At the same time, retailers have been applying significant price pressure to all fresh produce suppliers in recent years and this shows no sign of abating. The advent of value packs has reduced the volume of class 2 fresh produce which has to be sold outside of retail markets. Within the region there are no freezing facilities for class 2 fresh produce unlike the East of England where the majority of freezing plants are located. Rising fuel and energy costs (particularly diesel) are further contributing to the cost-price squeeze.

Looking to the future, as well as some possible limited expansion to more distant markets, business in the Cornish fruit and vegetable sector will be looking to add value to some products and to diversify their offer. Trials of a small range of more exotic fruits and vegetables that could be suited to Cornish growing conditions are being undertaken in West Cornwall. As with other sectors, energy/fuel savings will be sought and close attention will be paid to credit control as the potential for bad debt rises.
6 Meat and Poultry

6.1 Introduction

Livestock production in Cornwall is the second largest contributor to overall agricultural output, after dairying, and is associated with significant post farmgate activity within meat processing businesses. Beef production alone accounts for an estimated 23% of the total farmgate value of Cornish agricultural production. The sector is subject to the same on-going process of farm specialisation that is a feature of the rest of the UK.

An efficient and profitable abattoir sector is key to a successful livestock sector. The South West of England is well supplied with abattoirs of all scales supplying all markets and bringing cattle and sheep into the region for slaughter. Within Cornwall there are currently two large full throughput abattoirs supplying major retailers with beef and lamb, but no major pig abattoir within the county. This said significant numbers of cattle and sheep move beyond the borders of Cornwall for slaughter in line with abattoirs sales and marketing plans. However, increasing transport costs could start to restrict the free movement of livestock out of the area for slaughter, which would impact on the competition within the marketplace. Abattoirs report on the impact on business cash flow of increased farmgate prices which is markedly increasing their financing requirements. Abattoirs in the county have also reported tightening supplies in recent years, with one stating that lamb throughput is down which will impact on production costs and the other taking steps to ensure total throughput is maintained. All abattoirs reported on the intense price pressure they are under from retail customers who are seeking to limit price rises and maintain their margins.

Cornwall is well supplied with smaller abattoirs largely catering for producers wishing to market their own animals through farmers markets, farm shops and other niche outlets. Whilst this is a valuable marketplace for those involved the overall scale is relatively low. In 2004, Cooper, Simms et al calculated that less than 10% of total red meat production in the South West was marketed outside mainstream supply chains. Since that research was carried out there have been no major new entrants into the abattoir sector in Cornwall and hence this figure is unlikely to have risen as major abattoirs serving retail customers do not normally offer contract processing services to producers and smaller low throughput plants have caps on their throughput.

As is clear from Table 6.1 the Cornish beef and dairy herd has been relatively stable in recent years, although as already noted the dairy herd has started to rise again. The decline in sheep numbers may be associated with the switch from headage payments to the Single Farm Payment and reflects national trends. That said, recent improvements in lamb prices and a tendency for some farmers to switch to lamb production as part of a strategy of reducing the impact of bTB (Bovine TB) risk may mean that Defra data does not provide an accurate picture of the very latest developments on the ground in Cornwall.
**Table 6.1  Cornish Livestock numbers 2005-2010**

<table>
<thead>
<tr>
<th></th>
<th>All holdings</th>
<th>% change 2005 to 2009</th>
<th>Commercial holdings only</th>
<th>% change 2009 to 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef herd</td>
<td>45,321</td>
<td>44,497</td>
<td>45,355</td>
<td>43,455</td>
</tr>
<tr>
<td></td>
<td>46,064</td>
<td>45,355</td>
<td></td>
<td>43,010</td>
</tr>
<tr>
<td></td>
<td>46,064</td>
<td></td>
<td>1%</td>
<td>43,455</td>
</tr>
<tr>
<td>Dairy herd</td>
<td>73,877</td>
<td>73,919</td>
<td>73,752</td>
<td>73,038</td>
</tr>
<tr>
<td></td>
<td>74,211</td>
<td>73,038</td>
<td>-1%</td>
<td>72,481</td>
</tr>
<tr>
<td></td>
<td>74,211</td>
<td></td>
<td>2%</td>
<td>74,224</td>
</tr>
<tr>
<td>Total pigs</td>
<td>37,477</td>
<td>48,713</td>
<td>53,695</td>
<td>48,929</td>
</tr>
<tr>
<td></td>
<td>501,658</td>
<td>31%</td>
<td></td>
<td>42,932</td>
</tr>
<tr>
<td></td>
<td>501,658</td>
<td></td>
<td>-2%</td>
<td>42,016</td>
</tr>
<tr>
<td>Total sheep</td>
<td>519,812</td>
<td>521,033</td>
<td></td>
<td>466,518</td>
</tr>
<tr>
<td></td>
<td>503,374</td>
<td>-7%</td>
<td></td>
<td>460,804</td>
</tr>
</tbody>
</table>

**6.2  Beef Production**

Although the size of the Cornish beef herd varies on a year-on-year basis it is now largely back at pre FMD levels (see Figure 6.1). There is of course a lag of about 2 years between changes in beef herd numbers and changes in the supply of beef. In 2010 the estimated total production from the Cornish beef herd was 29,300 tonnes dressed carcass weight. It is important to note however, that compared to our previous analysis of 2005 data, when older animals could not be marketed, the reintroduction of older animals to the market explains most of this significant uplift in production. The average price per kilo for production has risen from £1.81/kg CDW to £2.47 (+37%) but this includes the lowering effect of the older cattle. Prices for prime finished cattle (liveweight) have risen from £1.02 to £1.47/kg (+55%). Based on UK beef consumption data, Cornish beef consumption is considerably less than total supply leaving a surplus of 20,300 tonnes with an estimated market value of £50m available for consumption elsewhere.
Figure 6.1  Beef breeding herd in Cornwall 1981-2010 (indexed)

![Graph showing beef breeding herd in Cornwall 1981-2010 (indexed)](image)

Source: Defra data

Table 6.2  Cornish beef supply and use, 2010*

<table>
<thead>
<tr>
<th></th>
<th>Dressed carcass weight, tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total production</td>
<td>29,300</td>
</tr>
<tr>
<td>Total domestic use</td>
<td>9,000</td>
</tr>
<tr>
<td>Surplus (deficit)</td>
<td>20,300</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>£m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of production</td>
<td>73</td>
</tr>
<tr>
<td>Value of surplus (deficit)</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornish production a % of UK production</td>
<td>3.3%</td>
</tr>
<tr>
<td>UK production as % of UK domestic use</td>
<td>85%</td>
</tr>
<tr>
<td>Cornish production as % of Cornish domestic use</td>
<td>325%</td>
</tr>
</tbody>
</table>

*Estimates based on methodology and coefficients supplied by MLC

6.3  The Cornish Beef Supply Chain

There are two major beef plants in Cornwall. The largest slaughters at least 50% of the estimated prime beef production of Cornwall (assuming net migration of store cattle is negligible and less than 10% black and white bull calves are slaughtered at birth) and close to 30% of Cornwall’s cull cattle. This plant is a major long standing supplier to Tesco. The other significant abattoir in Cornwall for cattle processes
around 30% of Cornwall’s prime cattle supply. This plant also processes a similar number of cattle from Devon. It has a long standing association with Ginsters, supplying all the beef for their meat pie manufacture and unlike the other major plant, does not primarily supply the multiple retail sector but rather supplies, manufacturers and retail butchers.

Cattle supply appears to be tightening which is causing all abattoirs to consider their procurement mechanisms. Figure 6.2 below, which illustrates the routes to market for cattle from Cornwall, indicates that producers themselves book their cattle in to the main plants in Cornwall. This means that many abattoirs do not have a significant procurement capacity in house which could be a risk in times when the supply of cattle is tight and they need to compete with other abattoirs for cattle.

According to Cooper Simms et al (2004) in 2004 less than 15% of prime beef cattle were sold through livestock markets in the South West at that time. Since then the number of livestock markets in Cornwall has declined and pressure from retailers for cattle to go direct to abattoir from farm has increased such that the number of prime cattle sold in markets has reduced marginally (according to abattoir buyers).

CQLP, the Cornish based livestock producer group, and Milk Link entered into a joint venture in spring 2007 with CQLP offering marketing services to Milk Link members. This has been successful in enabling Milk Link members to market their cull cows more effectively and in enabling CQLP to benefit from economies of scale in transporting cattle to abattoirs within Cornwall and outside of the region such that CQLP now handles around 5% of total cattle sales from Cornwall.

Abattoirs outside the county have agents operating within Cornwall to procure cattle. However, the increase in diesel prices since 2008 has added an estimated £15-20/head to transport costs to move cattle into the Midlands which makes local slaughter more competitive.

Local butchers provide a valuable route to market for specialist beef producers in the county. One outlet alone takes close to 3% of Cornwall’s total production capacity of prime beef. The quality of Cornish beef is also recognised amongst the top chefs both inside and outside the county. A small distributor who has set up specifically to supply Cornish meat (and fish) to the top London restaurants in collaboration with a respected Cornish butcher and fishmonger, reports that they now supply a number of the restaurants rated among the top ten in the capital, all of whom are very positive about the quality of the product, one of whom is reported to have claimed it is the ‘best beef in the world’.

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19 Vion Procurement Manager, personal communication
6.4 Sheep production

After fluctuating widely, the county’s sheep numbers are now back where they were thirty years ago (see Figure 6.3 and 6.4). The sheep support regime under the CAP, specifically headage payments, is generally thought to have stimulated significant increases in the sheep population, both nationally and within Cornwall. The introduction of quotas in 1992 effectively reined back breeding flock numbers and the 2003 CAP reforms (implemented in 2005) effectively broke the link between CAP support and farm level production so that current numbers are a better reflection of prevailing market demand. According to local observers of the Cornish meat sector, recently a combination of the impact of bTB and strong lamb trading has seen a number of producers that had moved out of the industry return.

In 2010 the estimated production of lamb and mutton from Cornish breeding stock was 4400 tonnes of dressed carcass weight, which represents a marginal decline in production since 2005. Assuming that the Cornish population consumes lamb at the same rate as the rest of the country however, this still leaves a surplus of 2,690 tonnes with an estimated value of £5.6m (see Table 6.3).
Figure 6.3  Cornish sheep numbers (all sheep), 1981 to 2010 (indexed)

Source: Defra data

Figure 6.4  Cornish breeding ewe flock, 1981 to 2010 (indexed)

Source: Defra data
Table 6.3  Cornish lamb and mutton supply and use

<table>
<thead>
<tr>
<th></th>
<th>Tonnes dressed carcass weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total production</td>
<td>4400</td>
</tr>
<tr>
<td>Total domestic uses</td>
<td>2690</td>
</tr>
<tr>
<td>Surplus (deficit)</td>
<td>1710</td>
</tr>
<tr>
<td>£m</td>
<td></td>
</tr>
<tr>
<td>Value of production</td>
<td>14.8</td>
</tr>
<tr>
<td>Value of surplus (deficit)</td>
<td>5.6</td>
</tr>
<tr>
<td>Cornish production as % of UK production</td>
<td>1.5%</td>
</tr>
<tr>
<td>UK production as % of UK domestic use</td>
<td>92%</td>
</tr>
<tr>
<td>Cornish production as % of Cornish domestic use</td>
<td>161%</td>
</tr>
</tbody>
</table>

6.5  The Cornish Lamb Supply Chain

For over a decade counties in the South West of England have been supplying supermarkets such as Sainsbury’s, Tesco, and at one time Safeway, with Westcountry lamb supplied predominantly out of regional abattoirs. These branded sales continue through two major meat processing businesses. It is difficult to estimate accurately the proportion of Cornish lambs which enter these branded supply chains annually but discussions with key abattoirs and producer groups suggests that at least 20% Cornish prime lamb production is sold as Westcountry Lamb.

The only major Cornish lamb abattoir supplies a significant proportion of Waitrose’s Dorset lamb for sale over counters across the country. In addition this business exports close to 10% of its prime lamb throughput to France and contract slaughters around 50,000 “Westcountry” lambs per year from the South West for a Sainsbury’s supplier. These value added markets underpin Cornwall’s sheep production sector as part of the South West of England’s capability to produce lowland prime lamb with a season starting some six weeks earlier than in other parts of the country.

Despite these markets less than 50% of Cornwall’s annual production of prime lambs are slaughtered within the county, with the majority being purchased by other retail supply abattoirs based outside the county and (in contrast to the beef sector) an
estimated 40-45% of prime lambs are sold through regional livestock markets for slaughter across the country. The Cornish lamb supply chain is illustrated in Figure 6.5.

**Figure 6.5  The Cornish lamb supply chain**

![Diagram of the Cornish lamb supply chain]

### 6.6 Trends, developments and critical issues in the Cornish red meat sector

The 22 meat production/processing businesses that responded to the online survey supplied their produce through a variety of routes but direct sales to restaurants and private caterers, and sales to end consumers via own shops, farmers markets and shows where the most common. These businesses were largely orientated towards the local Cornish market which accounted for 75% of sales. Regional and national markets accounted for a roughly equal share of remaining sales, with less than 1% of sales being made in international markets. Some expressed an intention to expand out of county sales but the vast majority (82%) expected that the size of their business would remain stable or expand only marginally in the short term. Evidence from our interview survey points to the growing potential of international markets, so the near future may see more Cornish meat being exported abroad. Despite improving prices, only 27% described their current economic position as “good”, with the majority (64%) describing it as “fair”. Input prices (e.g. energy costs and animal feed) have increased so again, margins are being squeezed. If this pattern continues, and meat producers and processors are unable to pass on at least part of their cost increases, the near future could see some difficult trading conditions. On
the other hand, 41% thought that their prospects for the next 3 years were “good” or “excellent”. Nevertheless, the increasing prospect of bad debt means that many businesses will need to pay much closer attention to their finances. As in other sectors, Cornish meat producing and processing businesses are actively seeking means of reducing their energy costs and are investing in, or planning to invest in, renewable energy solutions.

6.7 Pig production

Pig production within Cornwall remains limited. According to Defra June Survey data in 2009 there were 122 specialist pig producers but of these only 39 meet Defra’s new definition of a commercial holding, which in the pig sector is 50 pigs in total or more than 10 breeding sows. As figure 6.6 indicates the Cornish pig herd has experienced some growth since our last review, although numbers are currently down. Figure 6.7 presents data on the Cornish breeding herd which points to the cyclical pattern of breeding pig numbers. Figure 6.7 also demonstrates the degree of concentration in the sector. The removal of Cornwall’s 83 ‘non-commercial’ (in Defra terms) pig producers results in only 750 pigs been removed from the data. This suggests that the vast bulk of the Cornish breeding herd is in the hands of a small number of ‘commercial’ pig producers.

Due to the small size of the Cornish pig sector the county is unable to supply its own internal demand for pig meat (assuming the Cornish population consume the same about of pig meat as the national average), Cornish production accounts for only 66% of Cornish use of pig meat, leaving a production deficit with a value of £5.4m.

We interviewed two established business selling processed pork products. Although each sold quite different products both were already being much more pro-active in terms of credit control and both were looking to expand production and extend their out of county sales. Value products were experiencing a cost-price squeeze and the businesses generally had to work harder to maintain their position.
Figure 6.6  Cornish pig herd, 1981 to 2010 (indexed)

Source: Defra data

Figure 6.7  The Cornish Pig breeding herd, 1999-2010

Source: Defra data
Table 6.4 Cornish pig meat supply and use\(^1\), 2010

<table>
<thead>
<tr>
<th></th>
<th>Dressed carcass weight (tonnes)</th>
<th>£m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total production</td>
<td>7700</td>
<td></td>
</tr>
<tr>
<td>Total domestic uses</td>
<td>11600</td>
<td></td>
</tr>
<tr>
<td>Surplus / deficit</td>
<td>-3900</td>
<td></td>
</tr>
<tr>
<td>Value of production</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>Value of surplus / deficit</td>
<td>-5.4</td>
<td></td>
</tr>
<tr>
<td>Cornish production as % of UK production</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>UK production as % of UK domestic use</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Cornish production as % of Cornish domestic use</td>
<td>66%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Defra data.

\(^1\)Estimates based on calculations based on methodology and coefficients supplied by MLC Industry Strategy Consulting.

6.8 The poultry sector

The poultry sector both nationally and within Cornwall remains dominated by a relatively small number of large scale producers. Defra June survey data indicates that in 2009 there were 358 specialist poultry holdings in Cornwall although when the new criteria of ‘commercial holdings’ is applied (meaning a total flock size of over 1000) this figure falls to just 98. As with our previous review however, we remain concerned about the reliability of this data and have not attempted to undertake a detailed statistical analysis.

6.9 Eggs

The 5 poultry egg businesses responding to our online and telephone interview surveys were very much focused on the local market. All but one reported that 100% of their sales were within Cornwall. As with other sectors there was evidence of margins being squeezed and at least 1 producer was considering raising their prices. At the same time there was a perception that “eggs are such a staple food that they are always in demand”. There was however again evidence of the problem of debtors and of supplying businesses that have gone into administration with payments outstanding. Looking to the future, this sector may see some expansion into regional and national markets alongside new product development. Energy
costs are a concern and businesses are actively looking at renewables including PV cells and wind turbines.

6.10 Poultry meat

The poultry meat producer interviewed for this research reported that their sales had been markedly affected by the recession, with sales at markets and festivals particularly badly hit. The smaller high value end of the market had been less affected but the mid-range products were impacted and consumers were now buying different types of poultry meat product. The business was experiencing squeezed margins but was actively seeking ways to adapt to changing patterns of demand.
7 Processed foods

7.1 Introduction
As with our previous reviews of the Cornish agri-food sector there is less published information about the processed food sector than is available on primary producers. In addition, the size and diversity of the sector means that a comprehensive analysis of the performance of, and prospects for the sector would be prohibitively costly. We have therefore attempted to gain information from a cross-section of business from the various sub-sectors of processed food production including the vibrant beverage sector, sweet and savoury baked products, preserves and miscellaneous products.

7.2 Beverages
This is a truly diverse sector ranging from businesses bottling water, to micro-breweries and large-scale breweries serving the national market, and wine producers with an international reputation. The businesses surveyed for this research ranged in size from an annual turnover of £200,000 to £20m.

7.3 Alcoholic beverages
This is a dynamic sector that has enjoyed considerable development, growth and success in recent years. Three major breweries now operate in the county and all have undergone or are about to undergo expansion and development. There is a noticeable focus on quality - Cornish wines and ales have enjoyed world champion award wins in recent years. This has not gone unnoticed by some of the bigger players and, notably, led to the acquisition of Sharp’s Brewery by the multinational company Molson Coors earlier this year. Interestingly, the buyer has indicated that it does not want the brewery to lose its connection with the local community or its ‘Cornish’ credentials, which are clearly important in marketing terms.

Many Cornish beer, cider and wine producers are focused on the local Cornish market. Respondents to the online survey reported that on average 78% of their sales were within Cornwall and approximately 8% nationally. That said, both the online survey and telephone interview survey included businesses with a major focus on regional and national markets.

With some exceptions the alcoholic beverage sector seems to have been more adversely affected by the recession than many other sectors given that the output of this sector represents what is essentially discretionary spending. There were some reports that tourist spend had fallen and that ‘value’ products had been introduced to meet the needs of consumers wishing to spend less. Yet again, bad debt was a problem for some businesses in this sector with some supplying business that subsequently went bankrupt. Some of the younger businesses had grown during a period of prosperity and apparent affluence and have yet to be tested in troubling economic times.
In response to the prevailing economic conditions several producers were seeking to grow out of county sales, with some planning to focus on London and the South East. In turn this means businesses are actively seeking distribution solutions and to develop marketing and PR strategies to appeal to the London/SE England markets. Transport and distribution solutions and sales and marketing were the areas of future support most frequently mentioned by the alcoholic beverage businesses taking part in this research. The future may be challenging for those unable to secure loans or to fund such developments from their own capital reserves.

A number of new micro-breweries have been established in Cornwall since the last report and there is also growing interest in wine production. Cider, of course, is already strongly associated with the county. There is every indication that Cornwall could become as well known for the range and quality of its alcoholic drinks as it has become for the traditionally iconic Cornish products such as pasties and clotted cream.

7.4 Juices and water

Non-alcoholic soft drinks represent a small proportion of the Cornish food economy but one that has responded actively to market opportunities over the last 10 years or so. We interviewed 2 businesses from this sub-sector that are quite different in terms of size and recent experience. One, a relatively small business, reported a marked decline in sales both direct to end consumers and to restaurants and independent retailers. Consequently they planned to develop their sales and marketing strategies in order to increase sales in the local Cornish market. The other much larger business claimed not to have noticed much of an impact as a result of changes in economic conditions. They did however, feel that with 90% of their sales in Cornwall that they are too concentrated in the county and are making a concerted effort to expand into the markets of London and the south east. Finding transport and distribution solutions will be an important element in their drive to expand out of county sales.

7.5 Bakery products

The baked goods sector produces some of Cornwall’s most iconic products. Our last review reported continued growth in this buoyant sector which characterised by a diverse range of artisan and large scale producers. This time our interviews revealed falling sales in both the savoury and sweet bakery sectors. For larger operators there was concern over future sales predictions due to consumers reducing their out of home purchases of bakery products leading to them identifying a need to develop new markets where possible. At the same time, these businesses were experiencing ingredient price inflation and many reported being unable to pass on these increased costs. That said, the overall picture masks differences between various sub-sectors and niche markets. For instance, the demand for artisan bread is strong and growing and the savoury bake-off sector supplying supermarkets has been less affected by the recession than other parts of the baked goods sector. So although reports of squeezed margins were common, half of the 16 businesses in this sector responding to the online survey reported that the current economic position was good or
excellent and 11 thought that their future economic prospects were good or excellent.

This confident, optimistic economic outlook was frequently predicated on plans for expansion out of the “crowded” Cornish market and into the markets of London and the south east, where one respondent indicated is “where the money is”. While concerns over margins and profitability were frequently driving expansion plans, declining (or non-existent) capital reserves meant that access to borrowing was key to implementing existing plans. Several businesses commented on the difficulty and cost of accessing borrowed funds. Not only were banks perceived to be frequently unwilling to take the risk of lending, when they did arrangement fees were seen to be particularly costly. Without access to investment funds the plans of many of these businesses will not be realised. Transport and distribution logistics were also highlighted as a challenging issue, particularly for some of the smaller businesses seeking to expand into London and the south east.

7.6 Confectionery and ice cream

This is a dynamic sector that is likely to see further change in the near future. Of the 8 confectionery businesses responding to the online survey or taking part in the interview survey, only one does not plan to expand their business in the next few years. Typically this will involve expanding mail order/web based business to regional and national markets. As with virtually every other sector we have examined these businesses are currently experiencing input cost inflation at a time when, generally, orders are static or declining. However, this is a diverse sector and some businesses are seeing growth. One respondent reported that chocolate is largely “recession proof”, although input costs have increased significantly. There is also some evidence (as with other sectors) that the higher end of the market has been less affected. Given the expansionary nature of this sector it is perhaps not surprising that the main support needs identified include establishing routes to market, sales and marketing and capital investment.

7.7 Preserves & miscellaneous

This sector includes a range of companies producing preserves, honey and other products. The businesses focus largely, but not exclusively, is on the Cornish market supplying independent retailers and farm shops, restaurants and end consumers via web sales. Many of the businesses are relatively small in terms of turnover and frequently trade heavily on the Cornish-ness of their products. The change in prevailing economic conditions appears to have had a mixed impact and although several respondents were relatively sanguine about their prospects, reduced consumer spend alongside ingredient price increases were having an impact on margins. Some respondents argued that the local market had become crowded with more local Cornish producers and imports of other ‘local’ food from outside of the county. Several businesses saw the potential to expand their sales nationally and even internationally but require support in the form of capital investment and sales and marketing.
7.8  Trends, developments and critical issues in the processed food sector

This is a particularly diverse sector both in terms of the range and type of product and the size of individual businesses, ranging from those with a turnover counted in tens of thousands to those with turnovers measured in tens or hundreds of millions. With the exception of the largest businesses, this sector is heavily focused on serving the local market and visitors to Cornwall. Many of these businesses have grown in the period of prosperity and all, to varying degrees, are facing the challenge of a very different operating environment. Other than for some very specialist niche markets, declining margins are common and are frequently being ‘absorbed’ by the business. The majority of processed food business involved in this research felt that they cannot pass on the increase in the cost of production to their consumers. It is unclear therefore how long these businesses can continue to internally absorb squeezed margins (although of course, this does depend on how high their margins were originally). Many plan to look to what are perceived to be the more affluent markets of London and the south east in order to grow sales and/or escape what some see as a now crowded local market. This strategy of course brings with it challenges of accessing funds, devising suitable marketing strategies and routes to market as well as addressing the issue of transport and distribution.
8  Skills training in the Cornish agri-food sector

8.1  Introduction

In contrast to the sector-based analysis of previous sections this section considers issues around skills and training for all business responding to the online and telephone surveys. Our previous reviews have briefly examined these issues but this is the first time we have considered them in such detail.

8.2  Employment, skills and training

The following sections discuss responses pertaining to skills and training across the on-line and telephone survey and group discussion. This is supplemented with information from the Sector Skills Assessment for England’s Food and Drink Manufacturing and Processing Industry December 2010 (Improve Ltd 2010).

8.3  Number of graduates employed

72% of respondents indicated that the proportion of graduates employed was less than 20%. Of the 10% that responded that their workforce was >80% graduates these were micro businesses where it is assumed the owners/ managers/partners were the graduates. The Business Benefits of Training in the Food and Drink Manufacturing Industry (Ashton et al, 2008) reveals that businesses with higher proportions of their workforces having intermediate qualifications are significantly associated with greater benefits in productivity, growth capability, profitability and innovation. Industry workplaces with a low proportion of employees without any qualifications (or with high proportion with degrees) are significantly related to a greater ability to improve innovation.

8.4  Employment issues

Businesses were asked whether they had any employment issues. 12.4% reported issues with recruiting, 2.2% reported issues retaining, 7.9% had issues both recruiting & retaining and 36% had no problems. Businesses were asked to comment on any particular difficulties in either recruiting or retaining staff and included the following responses:

- available skills and preparedness to do manual work
cannot fulfil our staffing needs locally...use Polish workers
- Finding suitable staff prepared to work nights
- Finding suitably experienced people at a reasonable price is hard
- getting suitable candidates with the relevant experience
- It is very difficult to find good staff..... who are prepared to work part-time
- Mainly with senior finance position. There seems not enough fully qualified and experienced truly commercial personnel in the county. Affordability can be a factor.......Also we have problems recruiting properly qualified and experienced Technical personnel but generally no difficulty retaining them.
- people are more fluid.. and like to move around .. travel etc

8.5  Skills

The Sector Skills Assessment (Improve Ltd 2010) identifies that at the present time the England FDMP industry is facing a number of skills issues, negatively impacting on the ability of the industry to achieve its potential. In terms of attracting the necessary skills, 11% of employers report vacancies, with the highest incidence found within process, plant and machine operative roles and elementary roles, followed by skilled trades.

Hard to fill vacancies are reported by 2% of businesses and are most common amongst skilled trade occupations and process, plant and machine operatives; accounting for 81% of all hard to fill vacancies. Where these hard to fill vacancies exist, nearly all are attributed to skills shortages in the existing labour market. Within the existing FDMP workforce, 16% of employers report skills gaps and the highest incidence of skills gaps was amongst managers, skilled trades and process, plant and machine operative roles. The industry’s current requirements can be summarised under the following occupational categories:

• Managers – Perception that demand for appropriately qualified managers is outstripping supply; 34% of managers are felt to have skills gaps, suggesting that even amongst qualified managers there is scope for improvement.

• Professional / Associate Professional & Technical Roles – Skills shortages amongst FSTs and the ‘technician class’ is a relatively minor problem for employers with 3% not considered as fully proficient within the professional occupation group and 5% for associate professional & technical roles.

• Skilled Trades – Craft skills shortages in butchery and boning, with some evidence of migrant workers being used in these roles; skills deficiencies are prevalent amongst 30% of those in skilled trades occupations.

• Process, Plant and Machine Operatives – Historical recruitment problems appear to have been alleviated by the recession, with an increase in the number of applicants, however, candidates still lack technical, practical or job specific,
numeracy and literacy skills; and 16% of the workforce are thought to have similar skills gaps, with the addition of team working and oral communication skills.

- Elementary Roles – Skills shortages influencing recruitment difficulties include numeracy, literacy, problem solving, communication, and employability skills, such as team working; 14% of the workforce are thought to have similar skills gaps.

One respondent to the current research commented that one of the barriers to the further development of Cornwall agri-food sector was:

   ‘the lack of skills and desire of people to work in factories and in the food sector – there is a need to change perception as it creates recruitment problems.’

A range of sources (see Improve Ltd, 2010) suggest that the key skills priorities for the FDMP industry to remain competitive in the future are:

- Food Scientists and Technologists (FST) with higher level skills (although not exclusively FSTs, this includes variations of similar roles, e.g. food nutritionists and food health scientists etc).
- Engineers with higher level skills that have the ability to adapt and learn about bespoke machinery which is required for complex automated systems across the industry.
- Skilled trades positions that require specialist craft skills (e.g. butchery, bakery, meat processing) with intermediate skills.
- The industry needs high quality managers and supervisors encompassing higher level and intermediate skills (depending on their position) within all sectors and across all sizes of businesses to adopt new manufacturing and processing techniques.
- There is a need to improve basic skills and employability skills amongst those in production roles across the workforce to ensure that employers have the opportunity to ‘grow their own’ from the existing workforce when businesses expand and require managers and supervisors.

8.6 Migrant workers

Our previous review identified widespread use of migrant labour although the use of migrant labour now appears to be in decline. 75% of businesses reported that they currently employ no migrants. However, at the other end of the scale one business
stated that their workforce consists of 95% migrant workers. In England, non-UK nationals employed in the FDMP industry are concentrated in the meat processing sector (28%), followed by the bakery and other foods sectors (both accounting for 20%), and the fruit & vegetables sector (13%) (Improve Ltd, 2010).

When asked if the percentage of migrant workers within their workforce had changed the businesses taking part in this research gave very mixed responses including the following comments:

- A large reduction in past five years as there are a lot of young English lads leaving school looking for factory jobs
- It hasn’t changed or remains the same
- Increased as staff have remained with us and added to
- All local help 5 years ago
- Fewer migrant workers and all are working directly for the company no longer agency
- Increased by 10%
- Reduced
- Starting to decline slowly

There are 49,500 non-UK nationals working in the England FDMP industry, accounting for 22% of the workforce. Almost two thirds are from the Accession 8 states in the EU; the majority of which are of Polish origin. Migrant workers are most likely to work within the meat, bakery and fish sectors (Improve Ltd, 2010). There is some evidence that there has been a reduction in the availability of migrant workers in England, particularly in light of the recent economic downturn. Despite this, migrant workers remain an important part of the FDMP workforce. The limitations of English language skills is still viewed as a disadvantage, however this has not prevented some migrants from securing supervisory positions.

8.7 Training currently being undertaken

67% of respondents have trained staff within their business over the past 3 years. Of the 67% that trained staff a majority of the training identified has been in areas to meet legislative requirements, for example, food safety, animal transporting, health and safety, HACCP, first aid, fork lift, etc.

However, respondents went on to highlight a number of other specific training activities that had been undertaken. These included:

- Environmental training
- Business skills, business marketing, sales and product promotion
- management
- Excel and IT skills
- Project Management
- Role specific training – cheese making, bee keeping, organic farming, permaculture, viniculture, wineskills, cider making, butchering and processing
- Accounts and accounts packages
- Technical – Internal Auditing, SALSA, Product Specifications,
- Lean principles and business improvement techniques
- Apprentices, NVQs, FdSc and BSc
- UCP scheme for graduates which incorporates training and mentoring
- English Language

One business commented they had:

‘huge investment in technical, lean, food science and basic engineering, emotional intelligence and management techniques across many functions.’

Another business added about training:

‘in every sphere, in every department. It is part of the philosophy of the business.’

Training within businesses has involved a combination of in-house delivery, on the job training and courses from external providers. Of the telephone responses, only 7.5% felt training and skills development was an area the business needed to focus in order to remain successful or become more successful over the next three years.

One of these businesses commented that:

‘staff training (Investors in People) has been singled out as an area for attention over coming years – developing and retaining quality staff ensures continued success.’

Businesses in the FDMP industry generally tend to approach training in a reactive manner and increasingly respond to government legislation and the demands of the multiple retailers to drive training activity. Industry employers feel that the fast-moving, dynamic and ever-changing nature of the industry means that it is difficult to plan for training activity in advance. Employers often view training as a means of assessing competence to undertake a specific role rather than as a business tool.
8.8 Barriers to training

The online survey identified a range of barriers to training (see Table 8.1), the most common being that training was too expensive.

<table>
<thead>
<tr>
<th>Barriers to training</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lack of appropriate training / qualifications in the subject areas we need</td>
<td>12.4%</td>
</tr>
<tr>
<td>Equipment/processes require specialised supplier training</td>
<td>5.6%</td>
</tr>
<tr>
<td>Can’t spare more staff time (having them away on training)</td>
<td>21.3%</td>
</tr>
<tr>
<td>Staff now fully proficient / don’t need it</td>
<td>10.1%</td>
</tr>
<tr>
<td>Staff not keen</td>
<td>5.6%</td>
</tr>
<tr>
<td>A lack of good local training providers</td>
<td>7.9%</td>
</tr>
<tr>
<td>Lack of provision (for example courses are full up)</td>
<td>2.2%</td>
</tr>
<tr>
<td>Difficulty finding training providers who can deliver training where or when we want it</td>
<td>12.4%</td>
</tr>
<tr>
<td>Hard to find the time to organise training</td>
<td>15.7%</td>
</tr>
<tr>
<td>Lack of knowledge about training opportunities and / or suitable courses</td>
<td>5.6%</td>
</tr>
<tr>
<td>Lack of funds/training too expensive</td>
<td>32.6%</td>
</tr>
<tr>
<td>None</td>
<td>28.1%</td>
</tr>
</tbody>
</table>

Nationally, the belief that the workforce is proficient in their roles is the most commonly cited reason by (79%) employers for not providing their staff with training (Improve Ltd, 2010). The key limiting factors to offering training to staff are typically the costs of training, the amount of time taken away from the job in hand itself and by the amount of time it takes for the more experienced worker to show the trainee how to do the job in their absence (BMG Research, 2010a & BMG Research 2010b; pp6-7). This corroborates findings from a range of other research studies that found excusing employees from the production line is an extreme challenge for employers (BMG Research, 2007; Wood Holmes, 2009).
9  An overview of the Cornish Food Economy: trends and prospects

9.1  Introduction

In many ways the Cornish food economy of 2011 is little different to 2006. It remains highly diverse in terms of the range of products, business types and sizes. However, the trading environment has changed considerably and few if any businesses have been unaffected by the prevailing economic conditions. The impacts are complex, with evidence of widespread input inflation at the same time as downward pressure on prices. Consequently, margins are being squeezed, although it would seem that this is happening to a much lesser extent at the top end of the market.

9.2  The Cornish Food Economy: an overview of the results of the online survey

Although the survey achieved a good response rate of 22% it must be noted that when the 89 respondents are sub-divided by main sub-sector that the actual numbers in each category are quite small. For that reason the results of the subsequent analysis should be seen as illustrative only.

The survey captured a good cross section of business types, although as Figure 9.1 the majority were in the meat and egg production/processing sector and the processed foods sector. The surveyed businesses employed a total of 3891 staff in full-time, part-time and causal positions (Table 9.1). The processed food sector accounts for a significant proportion of total employment, much of which is in bakery product businesses.

The respondents to the survey were mostly managers, partners, or directors in their business. 38% had held their current position in the business for less than 5 years and 36% had been in their current position for over 10 years. The majority (70.5%) were long term (over 10 years) residents of Cornwall. The respondents were of a range of ages although, not surprisingly, a majority were aged 45-65. 25% of the businesses were relatively ‘new’ (in operation less than 5 years), although the majority (53%) had existed for over 10 years.
Figure 9.1  Food businesses responding to the online survey

![Bar chart showing employment in businesses across different sectors.]

Source: online survey

Table 9.1  Employment in businesses responding to the online survey

<table>
<thead>
<tr>
<th>Main agri-food sector</th>
<th>No. employed Full time</th>
<th>No. employed Part time</th>
<th>No. employed casual/seasonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat production/processing &amp; eggs</td>
<td>Mean: 15.00, Median: 1.50, Sum: 330</td>
<td>Mean: 1.63, Median: 1.50, Sum: 26</td>
<td>Mean: 1.46, Median: 1.00, Sum: 19</td>
</tr>
<tr>
<td>Dairy production/processing</td>
<td>Mean: 6.64, Median: 3.00, Sum: 73</td>
<td>Mean: 2.25, Median: 1.50, Sum: 18</td>
<td>Mean: 5.75, Median: 2.00, Sum: 46</td>
</tr>
<tr>
<td>Horticulture</td>
<td>Mean: 26.17, Median: 1.50, Sum: 157</td>
<td>Mean: 2.00, Median: 1.00, Sum: 71</td>
<td></td>
</tr>
<tr>
<td>Seafood</td>
<td>Mean: 3.00, Median: 2.00, Sum: 9</td>
<td>Mean: 4.50, Median: 4.50, Sum: 9</td>
<td></td>
</tr>
<tr>
<td>Other processed food &amp; drink</td>
<td>Mean: 78.48, Median: 4.00, Sum: 2433</td>
<td>Mean: 22.96, Median: 2.00, Sum: 551</td>
<td>Mean: 4.26, Median: 1.00, Sum: 98</td>
</tr>
<tr>
<td>Other</td>
<td>Mean: 9.33, Median: 2.00, Sum: 28</td>
<td>Mean: 1.33, Median: 1.00, Sum: 4</td>
<td></td>
</tr>
<tr>
<td>All businesses</td>
<td>Mean: 39.87, Median: 2.00, Sum: 3030</td>
<td>Mean: 10.66, Median: 2.00, Sum: 618</td>
<td>Mean: 4.50, Median: 1.50, Sum: 243</td>
</tr>
</tbody>
</table>

Source: online survey
On average 74% of all sales (by value) were made within Cornwall although this does vary somewhat by business type. It is clear for instance that the dairy and processed foods businesses are least ‘dependent’ on the Cornish market and that for a number of business types the national market played a small but important role (see table 9.2). It is notable that sales to international markets are relatively insignificant currently. 32% reported that they did not envisage any change in this pattern in the short term. Of the rest, most anticipated increasing sales regionally and/or nationally. As we have seen the markets of London and the south east are popular targets for businesses seeking to grow out of county sales.

Table 9.2  The geography of sales*

<table>
<thead>
<tr>
<th>Main agri-food sector</th>
<th>% of sales locally within Cornwall</th>
<th>% of sales within region</th>
<th>% of sales nationally</th>
<th>% of sales internationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat production/processing &amp; eggs</td>
<td>Mean 74.7</td>
<td>9.4</td>
<td>10.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Dairy production/processing</td>
<td>Mean 64.3</td>
<td>19.7</td>
<td>15.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Horticulture**</td>
<td>Mean 90.5</td>
<td>6.4</td>
<td>2.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Seafood</td>
<td>Mean 90.0</td>
<td>0.0</td>
<td>10.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other processed food &amp; drink</td>
<td>Mean 71.9</td>
<td>8.9</td>
<td>18.8</td>
<td>0.7</td>
</tr>
<tr>
<td>All businesses</td>
<td>Mean 74.4</td>
<td>9.8</td>
<td>14.0</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: online survey

*% of the value of all sales made by the responding businesses.
** It is likely that the large number of small horticultural businesses responding to the online survey have skewed these results in favour of the local market.

The businesses responding to the survey employ a wide range of routes in order to get their products to market. It is clear however, that direct sales to end consumers (though a variety of routes) are important, as are direct sales to restaurants, caterers and independent retailers. Figure 9.2 confirms that it is direct sales to end consumer via own shop, farmers market, box scheme, etc. that is the most important route to market for over a third of respondents. Indeed, just over 40% of respondents reported that various types of direct sales to their end consumer is the most important route to market.

Looking to the future, 37% of respondents indicated that they expect the way they sell their products will change over next 3 years. An expected increase in e-commerce was quite common (mentioned by 13 respondents). Typical barriers to
changing routes to market identified in the survey included the cost, skill and time needed to set up/expand/improve websites and cost/access to good, reliable, trustworthy couriers.

Respondents were asked, taking everything into account, to assess the current and future economic health of their business. As Table 9.3 indicates, close to half (44%) described the current economic position of their business as ‘good’ or ‘excellent’. Looking to the future 62.5% expect their business to be in a ‘good’ or ‘excellent’ economic state, indicating a significant degree of optimism. Fewer than 6% described their economic outlook as ‘poor’.

**Figure 9.2 Most important routes to market**

![Bar chart showing the most important routes to market for respondents. The chart indicates that direct sales to end consumer via own shop, farmers market, shows or fairs is the most important route, followed by direct sales to independent retailer(s) and direct sales to public sector caterer.]

Source: online survey
Table 9.3  Current and future economic assessment

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Bad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>Future</td>
<td>Current</td>
<td>Future</td>
<td>Current</td>
</tr>
<tr>
<td>Meat &amp; eggs</td>
<td>0.0</td>
<td>7.7</td>
<td>23.1</td>
<td>38.5</td>
<td>69.2</td>
</tr>
<tr>
<td>Dairy</td>
<td>9.1</td>
<td>9.1</td>
<td>45.5</td>
<td>45.5</td>
<td>18.2</td>
</tr>
<tr>
<td>Horticulture</td>
<td>0.0</td>
<td>0.0</td>
<td>37.5</td>
<td>62.5</td>
<td>50.0</td>
</tr>
<tr>
<td>Seafood</td>
<td>0.0</td>
<td>50.0</td>
<td>75.0</td>
<td>50.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Processed foods</td>
<td>16.7</td>
<td>16.7</td>
<td>38.9</td>
<td>52.8</td>
<td>33.3</td>
</tr>
<tr>
<td>All businesses</td>
<td>8.0%</td>
<td>12.5%</td>
<td>36.4%</td>
<td>50.0%</td>
<td>40.9%</td>
</tr>
</tbody>
</table>

Source: online survey

Looking forward, very few of the businesses anticipate continuing to trade at their current scale, with 70.8% indicating that they plan to increase the scale of their business either marginally or significantly. In terms of the support required (from the public or private sector) in order to bring plans to fruition, the most frequent responses were support for capital investment and support for sales and marketing. Very few businesses identified help with exporting as a support need which reflects the domestic orientation of most of the businesses in the survey.

9.3 Trends and prospects

This is our third review of the agri-food sector of Cornwall and the Isles of Scilly and it confirms the significant economic contribution the sector makes. The agri-food sector is far more important to Cornwall than it is nationally and there is a strong association between image of Cornwall and food. At the same time however, this means that adverse changes in the Cornish food economy could have serious repercussions for the county’s economy as a whole. Although most participants in this research were relatively optimistic about the near future, in contrast to our previous reviews all sectors are facing a challenging cost-price squeeze. Many are also seeing static or declining sales, although some premium products may be impacted less. There are some indications that the recession appears to be affecting the more mature businesses (and products) more than new ones. These are the businesses that will be trading large volumes with larger buyers and at reduced margins, with less room to manoeuvre and also less capacity to grow.

Many businesses report being unable (or unwilling) to pass on cost price increases and are consequently looking for other ways to secure their future. In contrast to our previous reports plans to expand into what are frequently perceived to be the lucrative markets of London and the south east are widespread. In part this reflects a growing perception among some who see the Cornish market as increasingly crowded. Plans to supply more distant markets inevitably raise the issue of transport links and efficient and effective distribution solutions, particularly for some of the smaller businesses. However, as one respondent highlighted, critical mass is an important aspect of successful distribution, whatever the size of the business or however wide or narrow the distribution network. Even on a very local basis, maximising sales within a given area helps create cost efficiencies. Many businesses
also need access to investment capital if their plans for expansion are to come to fruition but frequently find that access to such funds is both difficult and costly.

Our interviews revealed that supply chain linkages are important to producers – for example, that people are able to discover a product in a restaurant, then go on to buy the same product themselves in shops. The link between the hospitality sector and food and drink production has become particularly important, although the strong seasonality of this market can create difficulty. Some businesses are balancing the seasonal fluctuations of trade within Cornwall (or are looking to do so) with more stable year-round markets elsewhere in the UK, particularly London and other larger centres of population.

In line with national trends, some interviewees commented that people are not eating out as much. It was felt that more self-catering holidaymakers are choosing to eat in rather than eat in restaurants every day during their holiday. One of the consequences one respondent felt could be of benefit to local producers and independent shops is that holidaymakers will still want to treat themselves in some way and will therefore opt for good quality local produce rather than standard supermarket fare. This could be one of the reasons why some of the top-end producers have not felt such an impact from the recession as might have been expected.

Overall businesses appear to be using varied coping strategies through the current straightened economic times. Some claim to be fiercely protecting their existing market share locally rather than looking for new markets, while others are choosing to expand into new markets or new geographical areas rather than fight for what they perceive to be a reduced local market. The importance of social media as a marketing tool was highlighted, particularly as a cost-effective and quick method of spreading news for businesses of any size.

Some Cornish producers are expanding their market via online sales. Some local retailers are also doing this, and one wholesaler has set up a full home-delivery grocery service which it claims competes with the major multiples on price and outcompetes on freshness and local provenance, by sourcing direct from its own greengrocery wholesale business and other local wholesalers.

Although only a small number of businesses expressed an interest in exporting, those who did are larger businesses whose scale could lead to significant volumes of Cornish produce being exported. This is an area that is ripe to be investigated collectively, and the far-eastern market should not be overlooked as an unrealistic or too distant prospect.
Two other trends have emerged that were either largely or totally absent in both 2006 and 2003. The first is a reaction to escalating energy costs. Many businesses commented on their increasing transport costs due to diesel fuel price increases. At the same time other energy costs have also risen significantly. As a consequence there is now widespread interest in renewable energy. Considerable investment has already taken place in a range of renewable solutions and many businesses commented that they are currently exploring renewable options. This trend is largely a reaction to price increases but could represent a very significant greening of the county’s agri-food businesses.

The second newly emerging trend is directly linked to the on-going difficult economic conditions. Across most of the sectors studied we found evidence of ‘bad debt’. Many businesses are now looking at credit control much more closely and some have already switched their customers to COD terms. A number had suffered as a consequence of businesses they supplied failing with payments still outstanding.

Looking forward, the cost price squeeze is likely to have a continued influence on plans for the next few years as market prices and commodity prices were the most frequently mentioned external influences on business plans (Figure 9.3). Businesses see the focus of their attention being placed on products and markets and on developing strategies around those factors. Training and recruitment, although often referred to anecdotally as an issue did not feature strongly in the responses as a factor that was as critical to success (Figure 9.4).

The trends and issues faced by each sector are summarised in table 9.4.

**Figure 9.3   External influences on plans for next 3 years**

<table>
<thead>
<tr>
<th>Influence</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Rates</td>
<td>0.0</td>
</tr>
<tr>
<td>EU Protected Status</td>
<td>0.0</td>
</tr>
<tr>
<td>Availability of Migrant Labour</td>
<td>0.0</td>
</tr>
<tr>
<td>Interest Rates</td>
<td>0.0</td>
</tr>
<tr>
<td>Business Premises</td>
<td>0.0</td>
</tr>
<tr>
<td>Grant Aid</td>
<td>0.0</td>
</tr>
<tr>
<td>Availability of Labour</td>
<td>0.0</td>
</tr>
<tr>
<td>Cost of Labour</td>
<td>0.0</td>
</tr>
<tr>
<td>Regulatory Framework</td>
<td>0.0</td>
</tr>
<tr>
<td>Cost of Fuel</td>
<td>0.0</td>
</tr>
<tr>
<td>Cost of Borrowing</td>
<td>0.0</td>
</tr>
<tr>
<td>Market prices</td>
<td>0.0</td>
</tr>
<tr>
<td>Commodity Prices</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Source: Telephone survey
Figure 9.4  Areas to focus on in order to remain successful/become more successful over the next three years

![Bar chart showing areas to focus on over the next three years]

Source: Telephone survey

Table 9.4  Summary of recent trends and critical issues by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Trends</th>
<th>Critical issues and support needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>Decline in dairy herd halted. Continuing increase in yields and concentration of production into fewer, larger units. Improvements in milk prices but widespread cost-price squeeze. Rising costs, particularly energy costs stimulating interest in renewable energy.</td>
<td>Businesses seeking to grow out of county sales and develop new products. Support needed for NPD*, capital investment, sales and marketing, and transport and distribution</td>
</tr>
<tr>
<td>Meat</td>
<td>Beef numbers now back to pre-FMD levels and sheep numbers back to level of 30 years ago (prior to distortions associated with the CAP). Strong lamb trading has seen some producers return to this sector.</td>
<td>Opportunities for developing export market. Input prices (particularly energy and feed) squeezing margins. If price rises not passed on here could be difficult trading conditions ahead. Increasing prospect of bad debt means close monitoring of finances required. Need to reduce energy costs and develop renewable solutions.</td>
</tr>
<tr>
<td>Seafood</td>
<td>Slight abating of fuel prices has benefitted all sectors of the fleet with most returning to modest profitability. The catching sector showing increased polarisation to larger offshore vessel or small inshore vessels with very few in between. Focus on quality and sustainability has never been higher providing benefits for the whole supply chain with processors seeing strong demand for</td>
<td>Opportunities for smaller scale producers to work co-operatively to access the higher value markets, while larger vessels exploit better transport and communication to sell at the best market, which could be anywhere in Europe. Where possible processors will need to insulate themselves from bad debt through credit risk insurance. Rising cost of raw material could also meet consumer resistance if it continues to increase at 2010/11 levels.</td>
</tr>
</tbody>
</table>
### Sector Trends and Critical Issues

<table>
<thead>
<tr>
<th>Sector</th>
<th>Trends</th>
<th>Critical issues and support needs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Horticulture</strong></td>
<td>Strong focus on local supply for smaller scale producers. Increasing international competition. Businesses adversely affected by poor weather over last two years.</td>
<td>Opportunities for development of onion production subject to climatic conditions. Opportunity provided by Morrisons packhouse at Bridgewater. Escalating transport costs are contributing to cost-price squeeze. Businesses are looking to add value to products and identify fuel/energy solutions. Close attention to credit control needed as the potential for bad debt rises.</td>
</tr>
<tr>
<td><strong>Poultry and eggs</strong></td>
<td>Continuing strong focus on Cornish market. Reduced margins due to rising input costs.</td>
<td>May be some expansion in to regional and national markets alongside NPD. Need for tight credit control. Energy costs are a concern and businesses are actively seeking alternatives.</td>
</tr>
<tr>
<td><strong>Beverages</strong></td>
<td>A diverse sector somewhat at risk a result of reduced discretionary spend. Evidence of declining spend by tourists and local restaurants and independent retailers.</td>
<td>Plans to expand out of county sales dependent on finding transport and distribution solutions and require sales and marketing assistance. Access to borrowed funds is difficult.</td>
</tr>
<tr>
<td><strong>Confectionery</strong></td>
<td>A dynamic sector currently facing input cost inflation alongside stable or declining orders. Some evidence that top end of market less affected.</td>
<td>Very expansionary outlook targeting regional &amp; national markets. Support needs associated with this include establishing routes to new markets, sales and marketing, and capital investment.</td>
</tr>
<tr>
<td><strong>Baked products</strong></td>
<td>A very significant sector in terms of employment and turnover but facing declining sales and squeezed margins. NPD cited as means of offsetting declining sales. Some niche markets report growth. Local market becoming more crowded.</td>
<td>Confident and optimistic outlook associated with plans to grow out of county sales. Access to borrowed funds often difficult and expensive. Transport and distribution logistics remain a challenge for smaller businesses seeking to grow out of county sales.</td>
</tr>
<tr>
<td><strong>Preserves and Misc.</strong></td>
<td>Largely (but not exclusively) focused on Cornish market supplying independents, farm shops, restaurants and end consumers. Trade heavily on Cornish-ness of products. Reduced consumer spend coupled with rising costs of inputs is squeezing margins.</td>
<td>Some evidence that local market becoming too crowded. Potential for expansion in to national and international markets. Support required for capital investment, sales and marketing.</td>
</tr>
</tbody>
</table>

* New Product Development

### 9.4 Conclusions and recommendations

As we have seen, measuring the value of the Cornish agri-food economy in terms of either employment or GVA demonstrates its great economic significance to Cornwall and the Isles of Scilly. More than that, the Cornish food economy plays an integral role in the iconography of Cornwall, attracting high-profile chefs and media interest, in turn drawing food tourists and other visitors in search of the fresh, high quality produce for which the county is renowned.
There is much to be celebrated in all of this and the development of the Cornish food economy over recent years is an iconic Cornish success story. However, that success and the current importance of the sector mean that the impact of global recessionary trends may have significant repercussions for the Cornish food economy and, by extension, the Cornish economy as a whole. The turbulent and volatile nature of the economy means that some of the statistics presented in this report may date quite rapidly. What is clear however, across all of the sub-sectors we have studied is that many businesses are suffering from a cost-price squeeze. That close to 63% of all businesses responding to the online survey described their economic prospects as good or excellent suggests a degree of optimism which in turn may indicate that margins had previously been very comfortable or that businesses have resigned themselves to a period of tighter margins and reduced growth. Nevertheless, businesses are clearly experiencing difficult trading conditions and it cannot be expected that all will survive. It is therefore important at this stage that strategic thinking considers potential future scenarios and the implications of these for business support, rescue packages and the retraining of individuals who may be forced to leave the sector. Equally, this implies a need for close and ongoing monitoring of the sector, the widespread sharing of relevant intelligence and in particular the identification of market opportunities ripe for exploitation.

Part of the optimism displayed by many of our respondents derives at least in part from a commitment both to their individual products and to Cornish food more generally. As we have seen, many would like to expand out of county sales and frequently perceive opportunities in the markets of London and the south east. This has arisen in our previous reviews and some of the same challenges of distance, transport and distribution still remain. Nothing can remove the physical distance between Cornwall and other parts of the country and while it clearly has cost and logistics implications, businesses can and do find solutions although smaller businesses would benefit from assistance in this. If businesses are to grow their out of county sales they will need support in sales and marketing and in new product development. Further investigation to ascertain whether the perceived value of these markets is achievable in reality would also be useful. Efforts should be undertaken to harness the potential of peer to peer support. Cornwall has some highly successful food entrepreneurs and the value of their knowledge and experience to businesses should not be underestimated.

Despite the strong expression of commitment to ‘Cornish-ness’ which the survey found, there are hints amongst the responses that the current economic climate is leading some businesses, particularly in the hospitality sector, to revert to purchasing policies based purely on price (i.e. rather than quality or value), particularly for subsidiary elements of their food and drink requirements. There is an inherent danger here that much of the supply chain development work that has so improved the quality and reputation of Cornwall’s hospitality sector over the past decade could unravel, particularly if the national and global economic difficulties continue for some time.
Access to capital appears to be a limiting factor for some businesses and this, together with the prevalent cost-price squeezed alluded to, could seriously affect the investment potential of the sector over time. This could affect the ability of the sector to innovate and keep up with market trends, thus also potentially affecting the reputation that Cornish food and drink currently enjoys. Support mechanisms such as Convergence and the Regional Growth Fund may help overcome this.

Another possible consequence of the potential lack of investment capital and the tightening of margins, is the sector’s withdrawal from training and skills development programmes. Current levels of business confidence in the skill-set of its workforce are already noticeably lower in the food and drink sector in Cornwall and the IOS than the national average and this would therefore reduce further.

Finally, one of the most striking developments since our last review is the widespread interest in alternative energy sources. This is largely fuelled by a desire to offset the impact of significant energy cost inflation but also for some, recognition of the importance of improving the environmental sustainability of their business. Regardless of motivation, there appears to be significant potential for greening the energy infrastructure of the sector. This may involve solar and wind energy but also the generation of energy from biomass and the sector’s food waste, thus reducing/recycling food waste and generating green energy at the same time. Options such as this, which have the potential to both reduce costs and create new income streams, could provide one solution to the sector’s current struggle with cost-price pressure. This could also offer an important new marketing angle for Cornwall’s agri-food sector but action needs to take place now in order for the county to gain a competitive advantage in terms of green energy. The absence of a stable and consistent national policy is unhelpful, although strategic planning at the county scale could generate the ‘first to market’ edge consistent with Cornwall’s reputation in the wider UK agri-food economy. This would involve food business leaders in order to explore requirements and potential support needs and, importantly, how best to inform and communicate with the sector as a whole.

In conclusion, our analysis of the current state of the Cornish food economy suggests that it may be reaching a critical juncture. Across the sector rising costs, static or falling demand and downward price pressure is squeezing profit margins. The failure or contraction of businesses on a significant scale would have the potential to undo the impact of years of structural fund support that has undoubtedly helped to take the sector to the favourable position it currently enjoys. This does not mean that the sector will go into decline. As we have seen, Cornwall’s agri-food entrepreneurs are committed to the future of the sector. Rather, it points to a sector that needs to be nurtured through difficult economic times with positive, carefully directed investment focussing on Cornwall’s USPs, and ideally identifying new USPs, that will help generate the next phase of growth. This will ensure not only that it survives the current difficult trading conditions intact but that it retains and further improves its strength and reputation in readiness for the economic upturn when it comes.
References


APPENDIX

Methodological notes and additional analysis
**A1. Employment in the agri-food industries – detailed data**

It should be noted that the data is for employment so it includes full and part time employees and proprietors who can be also be full or part time. As such it is a headcount rather than a true measure of labour input like FTEs (Full Time Equivalents) or hours worked.

For each industrial sector this table gives:

- GB employment
- CORNISH employment
- CORNISH employment as a percentage of the GB
- The CORNISH location quotient
- % of employment within CORNISH Division
- % of employment within CORNISH narrow F&D
- % of employment within CORNISH broad F&D

The location quotient is a measure how strongly the sector is represented in the county, so for all industries the LQ is 100. Industries heavily represented, in employment terms, have an LQ well in excess of 100 and industries with little presence in the county well below.

**Data quality** is an issue, particularly when looking at smaller sectors at the county level. The employment element of BRES is survey based and the samples will be quite small so that there are likely to be some anomalies. For example the headcounts for fishing and for manufacture of dairy products look to be under estimates.

For reasons of confidentiality the headcounts are all rounded to the nearest 100 but the percentages and location quotients are calculated from the unrounded data. As a result some of the totals and subtotals may not be the exact summation of the relevant parts.
### Table A1  Employment in the Cornish Agri-food industry

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core and primary food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>010: DEFRA/Scottish Executive Agricultural Data</td>
<td>446,000</td>
<td>12,400</td>
<td>2.8%</td>
<td>361</td>
<td>96%</td>
<td>49%</td>
<td>24%</td>
</tr>
<tr>
<td>016: Support activities to agriculture and post-harvest crop activities</td>
<td>23,500</td>
<td>200</td>
<td>1.1%</td>
<td>137</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>031: Fishing</td>
<td>5,000</td>
<td>200</td>
<td>4.0%</td>
<td>521</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>032: Aquaculture</td>
<td>3,100</td>
<td>0</td>
<td>0.4%</td>
<td>57</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Primary food producers</strong></td>
<td>477,600</td>
<td>12,900</td>
<td>2.7%</td>
<td>349</td>
<td>100%</td>
<td>51%</td>
<td>24%</td>
</tr>
<tr>
<td>101: Processing and preserving of meat and production of meat products</td>
<td>70,900</td>
<td>2,200</td>
<td>3.1%</td>
<td>396</td>
<td>34%</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>102: Processing and preserving of fish, crustaceans and molluscs</td>
<td>14,900</td>
<td>100</td>
<td>0.9%</td>
<td>113</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>103: Processing and preserving of fruit and vegetables</td>
<td>32,100</td>
<td>0</td>
<td>0.1%</td>
<td>7</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>104: Manufacture of vegetable and animal oils and fats</td>
<td>1,600</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>105: Manufacture of dairy products</td>
<td>22,600</td>
<td>400</td>
<td>1.7%</td>
<td>217</td>
<td>6%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>106: Manufacture of grain mill products, starches and starch products</td>
<td>10,700</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>107: Manufacture of bakery and farinaceous</td>
<td>99,900</td>
<td>2,900</td>
<td>2.9%</td>
<td>375</td>
<td>45%</td>
<td>11%</td>
<td>5%</td>
</tr>
</tbody>
</table>
## GB Cornwall

### Cornwall as % of GB

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employment within Cornwall Core agri food</td>
<td>Cornwall Core and secondary food</td>
</tr>
<tr>
<td>Location quotient</td>
<td>GB</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>108 : Manufacture of other food products</td>
<td>73,200</td>
</tr>
<tr>
<td>109 : Manufacture of prepared animal feeds</td>
<td>12,900</td>
</tr>
<tr>
<td>110 : Manufacture of beverages</td>
<td>38,600</td>
</tr>
</tbody>
</table>

### Food and drink processers

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employment within Cornwall Core agri food</td>
<td>Cornwall Core and secondary food</td>
</tr>
<tr>
<td>Location quotient</td>
<td>GB</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2893 : Manufacture of machinery for food, beverage and tobacco processing</td>
<td>377,400</td>
</tr>
</tbody>
</table>

### C : Manufacturing

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employment within Cornwall Core agri food</td>
<td>Cornwall Core and secondary food</td>
</tr>
<tr>
<td>Location quotient</td>
<td>GB</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4611 : Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods</td>
<td>2,523,200</td>
</tr>
<tr>
<td>4617 : Agents involved in the sale of food, beverages and tobacco</td>
<td>2,800</td>
</tr>
<tr>
<td>4620 : Wholesale of agricultural raw materials and live animals</td>
<td>4,900</td>
</tr>
<tr>
<td>4630 : Wholesale of food, beverages and tobacco (minus 4635 tobacco)</td>
<td>26,400</td>
</tr>
</tbody>
</table>

### Food and drink wholesalers

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employment within Cornwall Core agri food</td>
<td>Cornwall Core and secondary food</td>
</tr>
<tr>
<td>Location quotient</td>
<td>GB</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>46 : Wholesale trade, except of motor vehicles and motorcycles</td>
<td>238,200</td>
</tr>
<tr>
<td>4635 : Tobacco retailing</td>
<td>1,159,900</td>
</tr>
<tr>
<td>GB</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Cornwall</td>
<td></td>
</tr>
<tr>
<td>Location quotient</td>
<td></td>
</tr>
<tr>
<td>% of employment within Cornwall Division</td>
<td></td>
</tr>
<tr>
<td>% of employment within Cornwall Core agri food</td>
<td></td>
</tr>
<tr>
<td>% of employment within Cornwall Core and secondary food</td>
<td></td>
</tr>
<tr>
<td>% of employment within Cornwall broadest agri-food</td>
<td></td>
</tr>
</tbody>
</table>

### 4711: Retail sale in non-specialised stores with food, beverages or tobacco predominating

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,049,400</td>
<td>11,700</td>
<td>1.1%</td>
<td>145</td>
<td>41%</td>
<td>22%</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

### 4721: Retail sale of fruit and vegetables in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,100</td>
<td>300</td>
<td>1.8%</td>
<td>236</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### 4722: Retail sale of meat and meat products in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>32,300</td>
<td>400</td>
<td>1.3%</td>
<td>175</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

### 4723: Retail sale of fish, crustaceans and molluscs in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,900</td>
<td>100</td>
<td>2.5%</td>
<td>326</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### 4724: Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>53,900</td>
<td>900</td>
<td>1.6%</td>
<td>209</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

### 4725: Retail sale of beverages in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>31,600</td>
<td>200</td>
<td>0.5%</td>
<td>69</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### 4729: Other retail sale of food in specialised stores

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>24,700</td>
<td>300</td>
<td>1.4%</td>
<td>182</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

### 4781: Retail sale via stalls and markets of food, beverages and tobacco products

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,600</td>
<td>0</td>
<td>0.8%</td>
<td>98</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Specialised food and drink retailers

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>162,000</td>
<td>2,200</td>
<td>1.3%</td>
<td>173</td>
<td>8%</td>
<td>9%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

### 47: Retail trade, except of motor vehicles and motorcycles

<table>
<thead>
<tr>
<th>GB</th>
<th>Cornwall</th>
<th>Cornwall as % of GB</th>
<th>Location quotient</th>
<th>% of employment within Cornwall Division</th>
<th>% of employment within Cornwall Core agri food</th>
<th>% of employment within Cornwall Core and secondary food</th>
<th>% of employment within Cornwall broadest agri-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,937,400</td>
<td>28,600</td>
<td>1.0%</td>
<td>126</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>GB Employment</td>
<td>Cornwall Employment</td>
<td>Cornwall as % of GB</td>
<td>Location quotient</td>
<td>Cornwall Core agri-food</td>
<td>Core agri-food and secondary food</td>
<td>Broadest agri-food</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>-------------------------</td>
<td>----------------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>717,100</td>
<td>7,600</td>
<td>1.1%</td>
<td>137</td>
<td>48%</td>
<td>14%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>242,800</td>
<td>1,200</td>
<td>0.5%</td>
<td>66</td>
<td>8%</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>574,300</td>
<td>7,000</td>
<td>1.2%</td>
<td>157</td>
<td>44%</td>
<td>13%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>1,534,100</td>
<td>15,800</td>
<td>1.0%</td>
<td>133</td>
<td>100%</td>
<td>30%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>385,300</td>
<td>10,900</td>
<td>2.8%</td>
<td>367</td>
<td></td>
<td></td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>1,919,500</td>
<td>26,700</td>
<td>1.4%</td>
<td>180</td>
<td></td>
<td></td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>28,297,500</td>
<td>218,600</td>
<td>0.8%</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,263,200</td>
<td>25,200</td>
<td>2.0%</td>
<td>259</td>
<td>100%</td>
<td>48%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>2,583,500</td>
<td>27,500</td>
<td>1.1%</td>
<td>138</td>
<td></td>
<td>52%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>3,846,700</td>
<td>52,800</td>
<td>1.4%</td>
<td>178</td>
<td></td>
<td>100%</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>385,300</td>
<td>10,900</td>
<td>2.8%</td>
<td>367</td>
<td></td>
<td></td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>4,232,100</td>
<td>63,700</td>
<td>1.5%</td>
<td>195</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
The percentage of employment within division gives an indication of the degree of concentration on particular sub-sectors, for example manufacture of dairy products accounts for 6% of employment across all food and drink processing and food and drink wholesalers account for 45% of employment across all wholesalers.

The final two columns look at how much individual industrial sectors contribute to the total food and drink employment. Here we present three measures: a narrower definition which includes only the SIC codes that are wholly food and drink related and boarder version which brings in accommodation and supermarket retailing. Some of the employment in these two additional sectors does relate to food and drink but clearly not all, so the narrow measure is an underestimate and the broad one an over estimate.

A2. Further analysis of Agricultural GVA

Below national level GVA data is also not deflated – that is, it is presented in the prices that were prevailing at the time with no adjustment for inflation. This is part of a wider complication with following agricultural output changes over time, where the value of output fluctuates far more due to changes in prices than changes in output volumes. At UK level ONS calculate sector ‘chained volume measures’ which estimates changes in output volumes rather than values. Figure # shows these for all UK industries compared with ‘agriculture’.

**Figure A1 Chained volume measures: agriculture and all industries compared**

![Chained volume measures diagram](image)

By comparing the chained volume measures with the current price values of output we can derive sector implied deflators – that is the adjustments needed to get from value to volume (Figure 2).
Figure A2: implied deflator for agriculture

This illustrates the degree to which price adjustments in ‘agriculture’ differ from those in the general economy. Rather than a fairly smooth pattern of general price inflation (the black line) we see an extended period of price declines in ‘agriculture’ (blue line) between 1996 and 2000, price increases close to general inflation for the next couple of years before a spike in 2004. This is followed by huge fall in 2005 – in effect the element of ‘price’ paid through subsidies to farmers is removed. This is followed by the very real world commodity price acceleration in 2007 and 2008.

So what does all this mean for agricultural output in Cornwall? Figure 3 shows the county’s nominal agricultural (blue line) output deflated national implied sector deflator (pink line). This gives some indication what the path of underlying changes in the volume of output may have been BUT there will be some level of distortion due to the county’s different commodity mix.

Looking at indexed prices (which include the value of subsidies) in Figure 4, the effect of the lack of cereal production in the county would have been substantially offset by the higher proportion of meat production which followed a similar price path up to 2006. The more muted path of milk prices, which would have a greater influence in the county, would mean that the UK deflator over deflates the county’s sector output, i.e. the pre and post 2006 parts of the curve should be higher than shown. That would result in a fairly flat chained volume output up to 2006 but a steeper increase thereafter. This profile would fit with the known facts that marketings of adult cattle resumed in 2006 having been suspended since 1995/96 and that milk quota has risen by 15% since 2004/05.
We therefore estimate that the changes in total nominal value up to 2005 were very largely due to price changes rather than decline or growth in the underlying volume of output. Since 2005 there has been a significant pick up in the nominal value of agricultural output, in the share of agriculture in the whole economy and, we estimate, in the underlying volume of agricultural output.
A3. Notes on modelled estimates of GVA

There are some other published sources of sector GVA estimates, for example produced by Experian and Oxford Economics, which are modelled using unpublished ONS data and these only get us a little further in terms of coverage adding Food and Drink manufacturing at the county level. As well as the additional ONS data these use unofficial data sources and complex estimations with the result that different models give different estimates. Because the methodologies are not fully disclosed these differences cannot be easily explained. For this reason we have only presented data derived from the South West Regional Accounts model, where in the data is most detailed and the methodology is most transparent, but we do recognise that it is only one of a number of estimations of how the Cornish economy functions. This further emphasises that with absence of any local supply chain that is sufficiently robust to be classified as ‘national statistics’ there is no definitive model of the Cornish economy.

A3.1 The South West Regional Accounts

The South West Regional Accounts are an integrated economic information system for the South West. The Accounts were compiled as part of the Business & Economy Module of the South West Regional Observatory to bring together information on all aspects of the region’s economy in a single, consistent, and integrated resource. The South West Regional Accounts were sponsored by the South West Regional Development Agency.

The core of the input-output accounts is the ‘transactions’ matrix, which records the values of purchases and sales between industry groups taking place within the economy during the relevant time period - in essence, a map of the supply chains linking local industries. The input-output matrix also specifies the inputs which each industry buys in the region, the value of local labour utilised, the value of imports brought in from other regions, taxes and gross profits. A typical transactions table divides the economy into production sectors (industry groupings such as ‘agriculture’ and ‘business services’ which are organised according to their principal commodity outputs), final demand categories (consumption, investment, government expenditure and exports), and factor incomes (typically employment, profits and taxes). The transactions matrix in the South West Regional Accounts can be mapped to the UK national input-output tables.

At county level only agriculture and food and drink manufacturing are directly available in the SWRA datasets. For the remaining sectors we have to move further still from the hard evidence and use regional data from the SWRA model to split broad sectors into detailed sector shares:

\[
\frac{\text{C part sector emp}}{\text{SW part sector emp}} \times \frac{\text{C whole sector emp}}{\text{SW whole sector emp}} \times \frac{\text{SW part sector GVA}}{\text{SW whole sector GVA}} \times \frac{\text{C whole sector GVA}}{\text{SW whole sector GVA}}
\]
For example, to calculate Cornwall’s F&D Wholesaling output what we know is Cornwall’s output for the whole wholesaling sector and the employment in both the whole sector and the part we are looking for. We can’t just use this to apportion the GVA because labour productivity may be different. So we take the relative labour productivity for the SW Region to adjust the allocation.