

Food production, processing and distribution in Cornwall and the Isles of Scilly

Matt Lobley, Matt Reed, Roger Metcalf and Jon Stephens

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The views expressed in this report are those of the authors and are not necessarily shared by other members of the University or by the University as a whole.

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The views expressed here are those of the authors and we are responsible for any errors.

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1 *Introduction*

1.1 **Background**

The commissioning, by Taste of the West and Cornwall Agricultural Council (CAC) in 2003, of a study to better characterise the Cornish food economy¹ was an important development in the recognition of the significance of the food economy to the county. The study signalled the lack of readily available data describing the scale and operation of the Cornish food sector. An improved understanding of the size, structure and operation of the food economy was essential to help policy makers and associated support structures assist businesses in Cornwall to identify and grasp opportunities associated with creating value in the food chain.

Since the original report was published it has become increasingly clear that participation in the supply chain and the production and processing of food rather than raw materials will become an ever more important part of the survival of the agricultural sector. Moreover, it can be argued that the South West Region generally and Cornwall in particular, is well placed for its primary producers, food processing and manufacturing sector to create and reap the benefit of this value. With its miles of rugged coastline and mild climate Cornwall is unique amongst the counties of Great Britain. Even for those who have not visited Cornwall, the name itself conjures up strong images and this, in past, has assisted the development of 'the Cornish brand'; a brand associated with heritage and quality. Cornish provenance is taking on an ever increasing value as a badge of quality.

The period since the publication of the original report has seen a number of initiatives which have both contributed to, and are a reflection of, an emerging Cornish food culture and food economy. For instance, the so called 'Rick Stein effect' (recently enhanced by the opening of a Padstow restaurant by four former Gordon Ramsey protégés) combines with the 'Tate St Ives effect', 'The Eden effect' and most recently the 'Jamie Oliver experience' at Fifteen Cornwall. Collectively, the impact on extending the visitor season and a commitment to sourcing and publicising locally produced food has aided the development and growth of direct supplies and is contributing to the local food culture of the county. The Eden Project, for instance, spends some 80% of its catering budget with food and drink suppliers in Cornwall². In addition, new developments such as Fifteen Cornwall (and other high quality restaurants) are leading to a improved and high quality skills base.

Other significant developments such as the Cornish Food Programme, which currently spends £300,000 on the direct sourcing of Cornish food for the Royal Cornwall NHS trust, demonstrate the increasing range of opportunities for local food producers. Central to the continuation and development of this initiative is the central food production unit which will go online in 2007 and

¹ See Reed et al [Food Production, Distribution and Processing in Cornwall and the Isles of Scilly](#).

² However, it is not clear what proportion of the food and drink is of Cornish provenance.

see spending on locally sourced food increase to £450,000 pa. It is estimated that the Cornish Food Programme has resulted in a reduction of food miles of over 116,000 pa with eggs, for instance, now travelling a maximum of 25 miles³.

While much of this has been achieved through the drive and enthusiasm of entrepreneurs, food processors, processors, chefs and others associated with the agri-food sector, public policy has also played an important enabling role. In particular, Cornwall has seen significant benefits arising from Objective One status and, closely associated with this, the strategic vision adopted by CAC. The vision, to which CAC and its partners are committed is to see Cornwall transformed into the UK's exemplar agri-food centre of excellence characterised by: Innovative companies; Added value; Competitive advantage and an Environmental economy. It is this vision and the associated strategic goals, which have directly influenced many of the recent developments in the Cornish food economy. For instance, recently completed research commissioned by GOSW (Whitehead and Baker, 2006) indicates that Objective One funding has been a significant stimulus to investment in the food and non-food processing sectors with the Objective One grant typically accounting for a third of the total value of the investment. Moreover, Objective One aid was associated with significant additionality effects; promoting investment that would not have otherwise taken place or would have taken place on a much reduced scale and/or over a longer period of time.

Food businesses in Cornwall have also benefited from the activities of organisations such as Cornwall Taste of the West, Organic South West and Business Link. In addition, and believed to be unique in the UK, the Gatsby Foundation⁴ is funding an Agri-food Innovation Service post at Duchy College which is designed to address the key business needs critical in fostering a strong, viable, and sustainable Agri-Food sector within Cornwall and to facilitate the engagement between industry and academic institutions to improve innovation within the sector. These needs include: access to new technologies, assistance with product and supply chain development, technical solutions to regulatory issues, bespoke workforce development and training, and access to processing equipment that will enable least-cost manufacturing of high quality value-added products.

At the same time, significant developments in the near future such as the proposed Waitrose Cornish Food Hall, the £4.7m investment in the Agri-Food Innovation Centre⁵ at Duchy College and, possibly in the longer term, a flour mill, point to the continuing importance and growth of the Cornish food sector. Nevertheless, the business implications of a peripheral location, a limited year round local market and access to supplies of inputs and skilled labour can all pose a challenge to Cornwall's food businesses.

³ Heath, personal communication.

⁴ One of the Sainsbury Family Charitable Trusts.

⁵ This will be a hub for all Agri-Food activities at the college and will provide an important resource for delivering relevant education and business support as the sector evolves.

1.2 Aims, objectives and methodology

Against this background, this project had the following aims and objectives:-

- 1 Repeat the methodology of 2003 in order to:
 - i. Complete a comparative analysis of the current position of the industry by sector.
 - ii. Make revised estimates on the scale of the Cornish Food Industry.
 - iii. Reflect upon factors that have affected the change.
 - iv. Revisit the sectoral analysis to see if the identified opportunities still exist and if trends in their exploitation are emerging.

- 2 Attempt to better define the input and output volumes and values associated with key Cornish Food Chains.

To quote the original report, “this research has not been easy”. Although the food economy of Cornwall has developed rapidly in the last 3 years, data is still hard to come by. Although we have made extensive use of Defra data and have been supplied with data from other sources⁶, many of the figures are derived from estimates and calculations and the necessary caveats are detailed in the accompanying text and tables.

The information in this report has been collected from a variety of sources including a literature review, published data and interviews with business owners and operators. At the outset we attempted to contact and interview the same 35 food producers and processors that were interviewed for the 2003 project. As before, some of these individuals proved very difficult to track down and interview, not least because many are busy running successful and demanding businesses. Inevitably we have had some outright refusals, some cases where people have been travelling on business for extended periods and a few instances where the business is no longer operating. The research team conducted in excess of 35 interviews comprising a mixture of repeat interviews with the same business/individual as in 2003 and new interviews with a mixture of new businesses in an attempt to improve coverage of specific sectors (e.g. marine fisheries). The businesses interviewed employ 374 FTEs⁷. A total of 25 interviewees were willing and able to disclose the turnover of their business, some £31.85m. Additional information has been supplied by many of those involved in supporting the development and operation of particular sectors such as marine fisheries and the organic sector.

The remainder of this report is divided into sections as follows: The first provides an overview of some of the key socio-economic characteristics of Cornwall and the Cornish food economy, and explores the economic contribution of the sector through revenue generation and employment creation. Sections 3 to 6 consider primary food production including the dairy sector, marine fisheries, horticulture, the meat sector and poultry. The growth

⁶ E.g. Cornish Horticultural Enterprises and the Sea Fish Industry Authority (Seafish).

⁷ Full Time Equivalents, a standardised means of expressing employment where 1 full-time post = 1 FTE, 1 part-time post = 0.5 FTE and 1 casual post = 0.3 FTE.

and significance of the organic food sector is discussed in section 7 and section 8 describes the processed food sector within Cornwall. The final section considers recent trends and outlines the value of some of the key food chains in the county.

2 *Socio-economic profile and overview of the Cornish food economy*

2.1 Background

The Cornish food economy does not exist in isolation from the rest of Cornish society. Much of what makes Cornwall the distinctive place that it is, and that attracts millions of visitors each year, provides the context in which the Cornish food economy has developed. The granting of Objective One status in 1999 is recognition of the particular economic and social challenges that Cornwall faces but other developments, such as continued in-migration, the rise in property prices and the significant challenges facing agriculture both provide the context for, and exert an influence on, the food economy of Cornwall.

2.2 Population and place

Cornwall and the Isles of Scilly is England's second largest county (354,920 hectares) and has the longest coastline of any county in England (697 km). In physical terms, Cornwall is one of the most isolated areas of the country. The nearest major urban centre outside of the county (Plymouth) is 125km (78 miles) from Penzance, while London is 450km (280 miles) away. There is no single dominant major urban centre in Cornwall and the nine main towns are spread throughout the County. In 2004 the population of the county was 517.5 thousand (0.57% of the UK total), most of whom live outside of the main urban centres, and with just 1.5 people per hectare Cornwall has the second lowest population density in the South West. Collectively, these characteristics contribute to a distinctive culture and high quality environment. At the same time, the remoteness of Cornwall reinforces its strong sense of place and identity.

The population of Cornwall has changed significantly since the 1970s. Since 1971 in-migration has seen the population increase by over one third. Indeed, at one time Cornwall was one of the fast growing counties in England. Contrary to popular belief, most in migrants are not retirees: Two thirds of the inward migrants to Cornwall have been people of working age although those most likely to leave in search of work are those in their upper teens and 20s.

2.3 Economy, employment and skills

In 2004 Cornwall's Gross Value Added⁸ (GVA) was £5,885.6m and while GVA per head was only 66% of the national figure this represents a significant increase since 1999. Moreover, according to one commentator "The Cornwall economy has comfortably outperformed the national economy over the decade" (Nankivell, 2005). Despite this performance, based on a number of indicators, the Cornish economy still 'lags' behind the national economy.

Unemployment rates have generally fallen in recent years and in May 2005 unemployment stood at 1.8% compared to 2.3% for GB as a whole. Despite low levels of unemployment, however, low wage levels for those in employment is associated low household income. In 2002 average weekly earnings for all adults in Cornwall were £348 compared to £377 for Devon, £422 for the SW region and £465 for GB as a whole. In other words, Cornish earnings were 25% less than national weekly earnings. Taking all of the Cornish population into account, income per head in 2004 was only 66% of the national figure. This difference can be largely explained by differences in key employment characteristics: Cornwall has more women employees, more part-time employees and more self employed (see Table 2.1). Each of those groups is associated with lower earnings.

Not only have unemployment rates fallen, but the ten years to 2004 saw almost 40,000 extra jobs created in Cornwall with a growth rate of 2.6 per annum. As can be seen from Table 2.2, the primary industries have all been in decline while distribution, business services, education, and social and community work have driven the rise in job numbers.

Table 2.1: Key employment characteristics: Cornwall and England compared

| | Cornwall 2004 | National 2004 |
|-------------------------------------------|----------------------|----------------------|
| Per capita income | £11,373 | £17,270 |
| % gap with national | 65.9 | N/a |
| Women as % of total employees | 53.5 | 48.8 |
| Part-time as % of total employees | 40.1 | 25.8 |
| Services as % of total employees | 81.9 | 85.8 |
| Self-employees as % of total labour force | 22.9 | 12.8 |
| Labour force as % of total population | 44.7 | 47.5 |
| Labour force per capita income | £25,423 | £36,408 |
| % gap with national | 69.8 | N/a |

Source: Nankivell, 2005

⁸ Distinct from the value of gross output, GVA is the value of goods and services after deductions are made for the costs of immediate purchases. As such it would be expected for GVA values to be less than gross output values.

Table 2.2: The structure of Cornish employment 1994-2004

| | 1994 (No) | 2004 (No) | Change 1994-2004 | % change pa |
|-------------------------------------------|----------------------|----------------------|-----------------------------|------------------------|
| Agriculture, forestry & fishing | 4,396 | 3,459 | -937 | -2.4 |
| Mining & quarrying | 2,820 | 1,483 | -1,337 | -6.2 |
| Electricity, gas & water | 1,298 | 641 | -657 | -6.8 |
| Construction | 5,116 | 7,103 | 1,988 | 3.3 |
| Manufacturing | 16,987 | 19,501 | 2,514 | 1.4 |
| Distribution (wholesale, retail & repair) | 25,701 | 37,696 | 11,995 | 3.9 |
| Hotels & catering | 16,746 | 20,906 | 4,161 | 2.2 |
| Transport & communications | 6,577 | 7,544 | 967 | 1.4 |
| Business services | 13,552 | 17,584 | 4,032 | 2.6 |
| Public administration | 7,815 | 9,300 | 1,485 | 1.8 |
| Education | 10,876 | 19,344 | 8,469 | 5.9 |
| Health | 12,829 | 14,406 | 1,578 | 1.2 |
| Social & other community work | 13,391 | 18,697 | 5,306 | 3.4 |
| Total | 138,102 | 177,664 | 39,562 | 2.6 |

Source: Nankivell, 2005

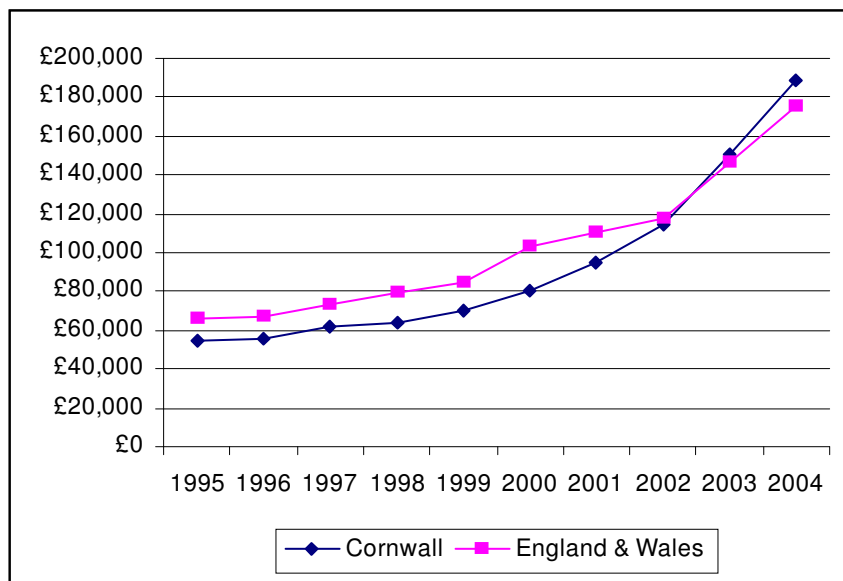
2.4 Housing

The boom in property prices has had a pronounced effect on the local economy. Figures from Proviser indicate that the average house price in Cornwall in 2006 was almost 280% above that of 1995 (Figure 2.1). Moreover, as Figure 2.2 indicates, during the early part of this decade average house prices in Cornwall were rising more rapidly than in England and Wales as a whole and by 2003 the average house price was greater in Cornwall than the national average. Given the generally low wage economy of the county, these property price rises are likely to reinforce contemporary patterns of out-migration by young people. They are also likely to create an important new sector in the Cornish population of in-migrants looking for a different lifestyle in Cornwall.

Figure 2.1: Trends in average property price in Cornwall (1995-2006)



Figure 2.2: Property price trends: Cornwall and England and Wales compared



Source: Cornwall County Council website.

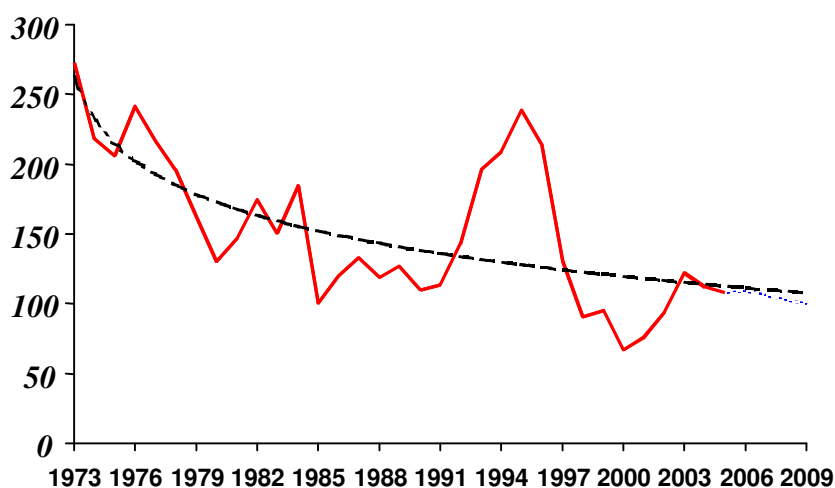
2.5 The Agricultural Economy

This is not the place for a detailed analysis of recent trends and prospects for Cornish agriculture (which is deserving of a report in itself), rather this section highlights some of the forces which are shaping the opportunities and challenges facing Cornish farmers and, in doing so, highlights the importance of producing *food* rather than just raw (food) materials.

At times it can seem that UK agriculture lurches from one crisis to another; BSE, FMD, an agricultural recession associated with sterling/euro exchange rates (i.e. a strong pound), and depressed world prices have promoted much speculation that agriculture was somehow on the brink of precipitous change. Then, following the Mid-Term review of the CAP, January 2005 saw the most radical reform to agricultural policy in post-war history in the form of the introduction of the Single Farm Payment⁹ (SFP). Evidence to date suggests that the latest round of CAP reforms have failed to usher in a period of rapid and radical restructuring although further change to the sector seems inevitable in the medium and longer term.

In 2005 Total Income From Farming¹⁰ (TIFF) was estimated to be 40% higher than the low point of 2000 but 11% down on the previous year. Whilst year-to-year fluctuations are common, the long term trend for farm incomes is downwards (see Figure 2.3). Defra's own projections for farm incomes show a slight upturn by 2010 (see Figure 2.4) but these projections are subject to "very broad margins of uncertainty" and do not take into account system shocks such as disease outbreak or extreme weather conditions.

Figure 2.3: The long term pattern of farm incomes in the UK (TIFF in real terms, index 1985=100)

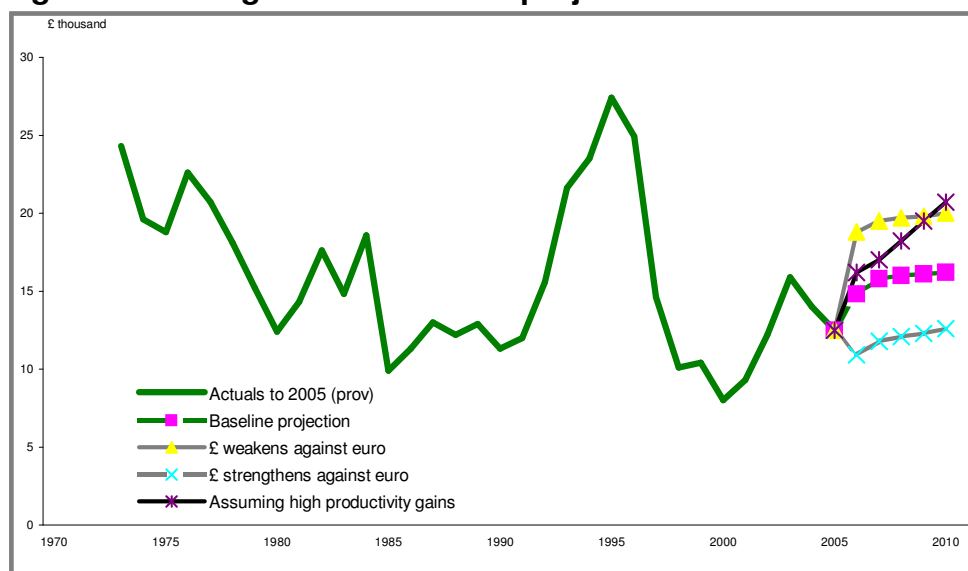


Source: McInerney, 2006.

⁹ Although almost universally known as the Single Farm Payment, Defra use the term Single Payment Scheme.

¹⁰ Total Income From Farming represents business profits plus income to farmers, partners, directors and others with an entrepreneurial interest in the farm business.

Figure 2.4: Long term trends and projects in farm incomes



Source: Adapted from Defra 2006a

The downward trend in Figures 2.3 and 2.4 reflects agriculture's declining contribution to the nation's income. It is estimated that in 2005 agriculture contributed just 0.6% to national GVA, while the figure for Cornwall was 2.8% (Defra 2006b & unpublished Defra data). The agri-food sector, on the other hand, accounted for 8.7% of total national GVA. To put this in context, total spending on food and drink in 2004/05 was £154 bn. Of this, the GVA of primary production by farmers was £5.2 bn. In other words, "the bulk of the economic value of food production comes after the farm gate" (McInerney, 2006). This economic value is created by transforming raw materials into food. Faced with declining incomes, but with a very powerful commitment to 'staying on the farm', more and more farmers are seeking to capture some of this added value for themselves. Of course, this is not the only route to survival. Others have embraced a wide range of diversified activities in increasingly large numbers. The key is to accept that producing raw materials is not likely to yield a large income and to seek additional means of income generation. This is nothing new for farming. Farmhouse cream teas were available to visitors on Exmoor in the 1930s and there is evidence that those who survived the depression of the '30s were more likely to operate diversified farm businesses (Gasson 1988). What is new however, is the multiple demands placed on the countryside for good food (of traceable provenance), biodiversity, recreational access and so on. In a county such as Cornwall, the prospects for effectively exploiting these demands are considerable. Such reorientation is not without risk (and attendant support needs) but as the following section shows, Cornwall has a thriving and growing food economy and there are many opportunities for further development.

2.6 The Cornish food economy

For the purposes of this report the Cornish food economy is defined as comprising primary producers (farmers, growers and fishermen who grow crops, raise animals or catch fish) and those who process food. Some of these will be processing products from within Cornwall but others will be importing food products from all over the world and processing them in the county. Although the retail sector is clearly an important element of the wider food economy it is not considered as a specific sector in this report.

As with the original research, a full picture of the Cornish food economy is beyond the scope of this study. In order to fully address the complexity of the contemporary food economy such an analysis would have to take into account the diverse range of services provided across a wide range of businesses (e.g. those who provide the chemicals used to grow the crops, the IT specialists who keep the production lines running, the engineers who service machinery and equipment, through to the photographers who specialise in food). The sheer complexity of these interconnections defies concise analysis and was beyond the time and financial resources available to the research team. Instead, the analysis of the food economy presented here takes a slice through various sectors, revealing the profiles of the businesses involved and their links in the food chain. From this point it is then possible to develop a more generalisable account of the various sectors of the food economy. Whilst it is recognised that this approach produces a more limited picture than if every link in the contemporary food chain had been traced and analysed, it nevertheless provides an illuminating map of the Cornish food economy in 2006.

2.7 Characteristics of the Cornish Food Economy

There are many ways of calculating the value of the Cornish food economy. In 1998 the total value of the food economy was estimated to be worth £800 million per annum to Cornwall¹¹. In 2003, the original report by the CRR indicated that the Cornish food economy was worth in excess of £1 billion per annum. More recently, research undertaken for the Cornish Local Intelligence Network indicates that the farm gate value of agricultural output was approximately £175m in 2004 and that the GVA of the food and drink sector was £186m in 2003.

Differences between alternative estimates can be accounted for by the use of different indicators (e.g. GVA compared to turnover), differences in definitions of what is and is not included in the sector and differences in the minimum size of business included. For instance, the GVA estimates reported above are for business that are VAT registered and/or PAYE registered. While the VAT threshold is relatively small in terms of turnover (£56,000), we have interviewed self-employed individuals running businesses with a turnover below the VAT threshold so it is likely that the GVA figures are an underestimate of total business activity.

¹¹ A figure calculated by Prosper in 1998.

Current estimates derived for this report using the same methodology¹² as in 2003 suggest that in 2005/06 the Cornish food economy is worth in excess of £1.5 billion. Clearly this figure must be treated with some caution and requires explanation. The following tables and accompanying text attempt to do this and include important ‘health warnings’ where we have concerns about the data.

The food processing and manufacturing sector is the most economically important sector in the Cornish food economy and, as our estimates show, is worth at least £900 million (see Table 2.3). As Table 2.3 indicates, the sector is dominated by a small group of very large processors and manufacturers who supply the national and international market. Equally, although they draw in supplies and services from across the UK, their direct and indirect contribution to the Cornish economy through sourcing, employment and services is considerable. These major processors alone directly employ well in excess of 2,850 people in Cornwall. In addition, in one sense, all of these processors supply the local food economy in Cornwall as their products are stocked by all the major multiple retailers and many other large retail stores. Within the diverse sector of food and drink processing and manufacturing, meat and meat products account for 50% of output followed by baked goods at 31%.¹³

Table 2.3: Major food processors and manufacturers with operations in Cornwall 2004/05

| <i>Company or Group</i> | <i>Turnover</i> |
|-----------------------------|---------------------------------|
| <i>Dairy Crest Group UK</i> | <i>£887 million¹</i> |
| <i>Davidstow plant</i> | <i>£170 million²</i> |
| <i>Samworth Brothers UK</i> | <i>£375 million</i> |
| <i>Ginsters</i> | <i>£140 million</i> |
| <i>Kensey Foods</i> | <i>£45 million</i> |
| <i>Tamar Foods</i> | <i>£50 million²</i> |
| <i>Roach Foods</i> | <i>£250 million</i> |
| <i>St Merryn Meat</i> | <i>£318 million</i> |

¹ Consumer food segment of business only

² Estimated figure

Source: various websites, annual reports and personal communications.

¹² 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. Clearly, it would be possible to refine and add to the range of sectors and types of spending used to calculate the value of the Cornish food economy. This report has employed the same approach as the 2003 report to allow a direct comparison but any future studies could consider incorporating data from additional sources such as smaller processing businesses, estimates of the retail value of food consumed by residents and the contribution of public procurement initiatives.

¹³ Nankivell, 2006.

In terms of primary production, the most important sector of the Cornish food economy is that of agricultural production which is estimated to be worth at least £199.4 million in terms of farm gate prices¹⁴ (see Table 2.4). The agricultural sector is highly diverse being numerically dominated by a large number of very small business while the bulk of production is in the hands of relatively few medium and larger scale businesses.

Table 2.4: Monetary value of the different agricultural sectors in Cornwall: 2001 & 2005 compared

| | <i>Value to Cornwall</i> 2001 | | <i>Value to Cornwall</i> 2005 | |
|------------------------------------|-----------------------------------------|-------------|-----------------------------------------|-------------|
| Arable crops | £900,000 | 1% | £1,700,000 | 1% |
| Potatoes | £10,100,000 | 6% | £11,300,000 | 6% |
| Horticulture | £18,500,000 | 11% | £19,700,000 | 10% |
| | <u>£29,500,000</u> | <u>17%</u> | <u>£32,700,000</u> | <u>16%</u> |
| Beef | £31,600,000 | 18% | £39,900,000 | 20% |
| Dairy | £92,300,000 | 53% | £96,700,000 | 48% |
| Sheep | £10,100,000 | 6% | £10,000,000 | 5% |
| Pigs | £5,400,000 | 3% | £6,700,000 | 3% |
| Poultry | £5,600,000 | 3% | £13,400,000 ¹ | 7% |
| | <u>£145,000,000</u> | <u>83%</u> | <u>£166,700,000</u> | <u>84%</u> |
| Total Value of Farm Produce | £174,500,000 | 100% | £199,400,000 | 100% |

Source: calculations based on multiple data sources

¹This figure should be treated with some caution. It is based on a mixture of 2004 and 2005 data and, due to a reduced number of responses to the DEFRA June Agricultural Survey, may be an overestimate of the size of the Cornish poultry sector. Also see comments in section 6.11.

Although not included in the calculation of the monetary size of the Cornish food economy¹⁵ it is nevertheless interesting to consider the level of farm incomes in the county. As Figure 2.5 indicates, in terms of Net Farm Income (NFI)¹⁶ Cornish agriculture generated £56m¹⁷ in 2005 including £0.52m in NFI for the Isles of Scilly. Comparing these figures with the value of farm gate sales and then the turnover of food the major processors it is quickly apparent that farming is the 'poor relation' of the wider food and drink sector.

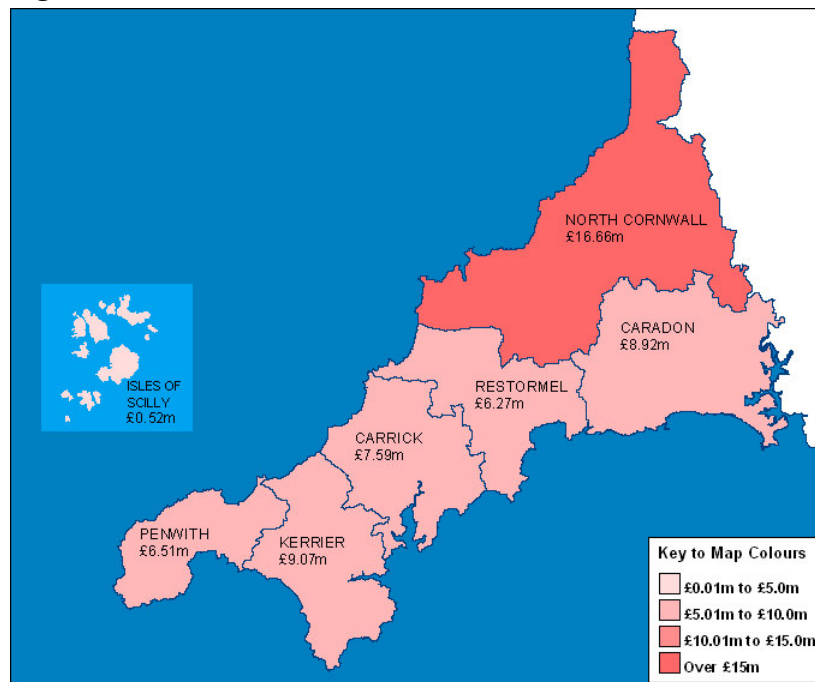
¹⁴ Whilst we are confident that this is a reasonable estimate, these figures should be treated with some caution as they are based on Farm Gate values calculated using UK national averages on an area basis. Actual farm gate prices received in Cornwall may differ from national averages.

¹⁵ There would be an element of double counting as the farmgate value of produce is already included in the calculation.

¹⁶ NFI is the reward to the farmer and spouse for their own manual labour and management together with a return on the tenant type capital they have invested within the business (i.e. excluding capital tied up in land and buildings which is regarded as landlord-type capital).

¹⁷ This figure has been calculated using the CRR Farm Incomes Model. It is based on the number of farms in each farm type category and their respective area. The model has been calibrated to take into account multiple holdings and other known issues with Defra data.

Figure 2.5: Net Farm Income in Cornwall and IoS, 2005



Source: CRR Farm Income Model

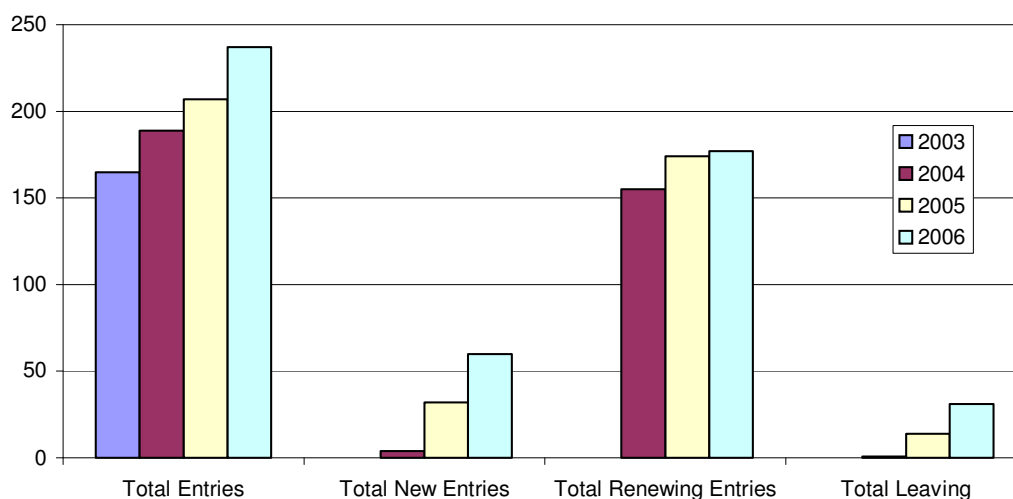
Collectively in 2005 these farm businesses employed 2,544 individuals in a mixture of full and part time positions as farm managers and other farm employees. June survey data indicates that there were 1,381 casual workers employed in 2005. To this can be added a further 10,417 farmers/directors/partners/spouses. Although some of these businesses have international links, the majority are embedded in the Cornish and, more generally, the regional economy. Within Cornish farming the most important sector, in terms of its economic contribution, is the dairy sector which, as well as accounting for close to half of the total value of farm gate sales, is also the foundation of one of the major food processors (Davidstow) and a wealth of smaller businesses. The Davidstow Dairy Crest plant is supplied by over 500 local farms.

Alongside farming, marine fisheries is the next most important element in terms of primary production. During 2005 12,493 tonnes of fish were landed in Cornwall from over 40 different species, caught by a wide variety of means and by a diverse range of boat sizes. Although economically the most important form of fishing is beam trawling, Cornwall also has boats specialising in netting, potting and hand-line fishing. The total value of the landed catch in 2005 was just over £26.5m. GVA in the merchant, processing and distribution sectors is likely to be in the region of £8m while turnover is estimated at £36m. The top 20 species by value account for 92% of the total value of fish landed in 2005. As the largest port, Newlyn accounts for approximately 74% of the landed value of fish followed by Looe and Falmouth (both with approximately 11% of the value of the catch) and then Padstow with 6%. The bulk of the catch (70%) is exported out of the county and most also goes out of the country. Thus, Cornwall's marine fishery sector is an important earner of export income.

Finally, although certainly not last in terms of value, it is important to consider the retail and hospitality sector. This sector is the most complex and opaque area to analyse as it includes both the permanent population of Cornwall and the visitor population. That said, just focusing on the tourist sector, in 2004 Cornwall benefited from 22.5 million tourist nights associated with a spend of £1,232 million. Within the SW region as a whole, 21% of the total tourist spend in 2004 was on food and drink. Assuming this proportion also holds true for Cornwall then tourists spent in the region of £259 million on food and drink in 2004.

Before considering each of the main food sectors in detail in the remainder of the report, a further indication of the vibrancy of the Cornish food economy is provided by an analysis of the number of listings in the annual Cornwall Food Finder Directory (published by Cornwall Taste of the West and Cornwall Enterprise). Although the publication is relatively new, as Figure 2.6 indicates, the total number of entries has grown rapidly. 2006 saw an increase in those leaving, although this was more than offset by the number of new entries and a marginal increase in those renewing their entry. These aggregate figures mask a complex pattern of change in individual sectors (see Appendix 1 for further details). The growing number of entries in the Food Finder, it can be argued, reflect a process which is attempting to reverse the ‘placelessness’ of food and to harness the potential social, economic and environmental benefits of the greater localisation of food supply.

Figure 2.6: Entries in Cornwall Food Finder 2003-2006¹



¹Excludes entries in the following categories: supporting businesses; finance and legal; marketing, PR and printing; training.

Source: Cornwall Food Finder, 2003, 2004, 2005, 2006.

3 *The dairy sector*¹⁸

3.1 Milk and milk products

Thanks to the largely warm wet climate with short winters, grass grows almost throughout the year – certainly for eleven months of the year, therefore dairying is the most important form of primary agriculture producing some of the finest dairy products, many of which are emblematic of Cornwall. Few visitors will leave Cornwall and the Isles of Scilly without a Cornish cream tea or a Cornish ice-cream or, more likely today, having tasted a piece of Cornish cheese. The dairy sector as a whole exhibits a mixture of all the dynamic changes taking place within the market place. For instance, some dairy farmers and milk processors are expanding and growing, whilst others are concentrating on processing their own range of products as well as making a more positive inroad into the growing ingredients market. Although many farmers are ceasing milk production altogether, actual milk production is increasing, thus illustrating the opportunities for more investment at the production level. Indeed, recent surveys by Barclays and by the Milk Development Council (MDC 2006) point to the intention of already large dairy producers to continue to invest in and expand their businesses. As our findings make clear, this is a highly dynamic area of food production.

3.2 Structure of the sector

Milk producers in Cornwall and Devon are following the rest of the UK in increasing herd size at the expense of the actual number of registered producers. As Table 3.1 indicates, over the five years to March 2006 Cornish registered dairy quota holders have declined by 30% to 714 holders and this trend shows no immediate sign of slackening. In Devon, the decline has been at an even faster rate at 32%. However, although the number of quota holders has declined the quota volume held within each county has increased significantly, demonstrating the change from small dairy farms into holdings with over 2m litres of annual quota. In Cornwall the quota held has increased by 5.9% to 542,062,297 litres pa., whereas, in Devon it has increased by 3.0% to 969,274,619 litres pa. The difference is illustrated by the change in the number of producers with more than 2m litres of quota. In Cornwall the increase has been by 58% to 41 dairy farmers, in Devon the increase has been by 40% to 62 producers. The further concentration of production in the hands of fewer, larger producers is quite clear from Table 3.2. In the year ending March 2003, 42% of Cornwall's milk supply came from producers with over 1m litres of quota whereas in the year commencing April 2006, the figure is likely to be 53%. Devon shows a very similar trend with 39.6% to March 2003 and 49.3% forecast for April/March 2007.

¹⁸ Additional background data for this and the following sections can be found in Appendix 2.

Table 3.1: Dairy production in Cornwall and Devon compared

Cornwall - Quota held and leasing data 2002/03 to 2006/07 *

| Q Year | Permanent | | Net | | Leased In | | Leased Out | |
|---------|-----------|-------------|-----|-------------|-----------|------------|------------|-------------|
| | No | Amount | No | Amount | No | Amount | No | Amount |
| 2002/03 | 1,026 | 511,698,868 | 876 | 528,922,906 | 423 | 74,256,479 | 317 | -56,598,131 |
| 2003/04 | 786 | 530,959,027 | 809 | 525,186,752 | 279 | 32,694,855 | 295 | -36,394,644 |
| 2004/05 | 752 | 532,689,973 | 766 | 507,421,359 | 56 | 6,112,082 | 136 | -25,617,507 |
| 2005/06 | 714 | 539,747,231 | 728 | 538,395,352 | 39 | 7,198,071 | 19 | -6,273,027 |
| 2006/07 | 714 | 542,062,297 | 714 | 542,062,297 | 0 | 0 | 0 | 0 |

Devon - Quota held and leasing data 2002/03 to 2006/07 *

| Q Year | Permanent | | Net | | Leased In | | Leased Out | |
|---------|-----------|-------------|-------|-------------|-----------|-------------|------------|-------------|
| | No | Amount | No | Amount | No | Amount | No | Amount |
| 2002/03 | 1,868 | 941,374,979 | 1,548 | 953,521,581 | 746 | 157,319,783 | 613 | 133,041,155 |
| 2003/04 | 1,387 | 946,215,922 | 1,422 | 961,530,997 | 559 | 80,100,451 | 463 | -61,884,542 |
| 2004/05 | 1,321 | 967,456,582 | 1,346 | 950,165,547 | 139 | 24,775,071 | 171 | -38,296,324 |
| 2005/06 | 1,263 | 964,779,528 | 1,278 | 974,287,139 | 96 | 34,049,871 | 44 | -38,220,781 |
| 2006/07 | 1,263 | 969,274,619 | 1,263 | 969,274,619 | 0 | 0 | 0 | 0 |

* Figures for 2006/07 are the position at the start of the quota year.

Source: RPA

The Cornish dairy industry has been very successful in attracting Objective One funds over the five year period 2001 to 2006. Manufacturers and processors have already invested or have contracted to invest over £71m of which over £18m has come from the Objective One programme. Most of the investment has been made in processing capacity, much of which will come on stream over the next three years which will improve the demand for raw ex-farm milk. Within these figures is the proposed investment to be made by the Dairy Collect Scheme which helps milk producers to improve on farm milk storage and in some cases farm yards and roadways.

As Table 3.3 indicates, there is a significant concentration of dairy cows in Cornwall compared to the national figure. That said, and in line with national trends, the total size of the Cornish dairy herd is in a decline in terms of the actual number of animals, with a 16% fall in between 2001-2005. Figure 3.1 demonstrates that this is part of a longer-term pattern of decline in the number of dairy animals over the past 20 years although, on average, these losses have been offset by the increase in the volume of production per animal.

Table 3.2: Size structure of dairy production: Cornwall and Devon compared

Cornwall - Number of Holdings with Net Quota within a given range 2002/03 to 2006/07 *

| Q Year | 10k to 100k | | 100k to 250k | | 250k to 500k | | 500k to 1M | | 1M to 2M | | Over 2M | |
|---------|-------------|-----------|--------------|------------|--------------|-------------|------------|-------------|----------|-------------|---------|-------------|
| | No | Volume | No | Volume | No | Volume | No | Volume | No | Volume | No | Volume |
| 2002/03 | 41 | 2,260,508 | 146 | 25,859,904 | 282 | 104,762,917 | 251 | 173,169,423 | 113 | 149,486,067 | 26 | 73,340,429 |
| 2003/04 | 34 | 1,934,292 | 133 | 23,615,951 | 252 | 94,805,298 | 245 | 174,686,770 | 110 | 148,113,637 | 30 | 82,014,928 |
| 2004/05 | 31 | 1,905,855 | 120 | 21,978,318 | 235 | 88,128,285 | 231 | 165,513,643 | 116 | 153,972,279 | 27 | 75,907,041 |
| 2005/06 | 22 | 1,151,672 | 101 | 18,124,290 | 212 | 79,670,532 | 225 | 160,050,092 | 126 | 170,133,630 | 36 | 109,231,339 |
| 2006/07 | 15 | 810,004 | 100 | 18,232,565 | 208 | 78,145,021 | 222 | 156,379,986 | 125 | 165,049,294 | 41 | 123,434,063 |

Devon - Number of Holdings with Net Quota within a given range 2002/03 to 2006/07 *

| Q Year | 10k to 100k | | 100k to 250k | | 250k to 500k | | 500k to 1M | | 1M to 2M | | Over 2M | |
|---------|-------------|-----------|--------------|------------|--------------|-------------|------------|-------------|----------|-------------|---------|-------------|
| | No | Volume | No | Volume | No | Volume | No | Volume | No | Volume | No | Volume |
| 2002/03 | 70 | 4,032,127 | 236 | 42,837,579 | 466 | 174,890,477 | 513 | 353,951,667 | 192 | 253,712,697 | 44 | 124,024,300 |
| 2003/04 | 57 | 3,583,507 | 186 | 33,920,863 | 387 | 145,166,748 | 512 | 358,360,664 | 214 | 282,467,980 | 50 | 137,981,493 |
| 2004/05 | 40 | 2,332,818 | 191 | 34,906,787 | 360 | 133,733,787 | 489 | 343,935,661 | 206 | 271,598,840 | 51 | 163,626,277 |
| 2005/06 | 29 | 1,704,448 | 155 | 28,712,830 | 323 | 119,637,627 | 489 | 345,892,457 | 222 | 297,467,454 | 58 | 180,860,830 |
| 2006/07 | 23 | 1,587,414 | 150 | 27,581,544 | 329 | 122,310,046 | 479 | 340,020,513 | 219 | 296,381,371 | 62 | 181,388,706 |

* Figures for 2006/07 are the position at the start of the quota year.

Table 3.3: Number of dairy cows in Cornwall

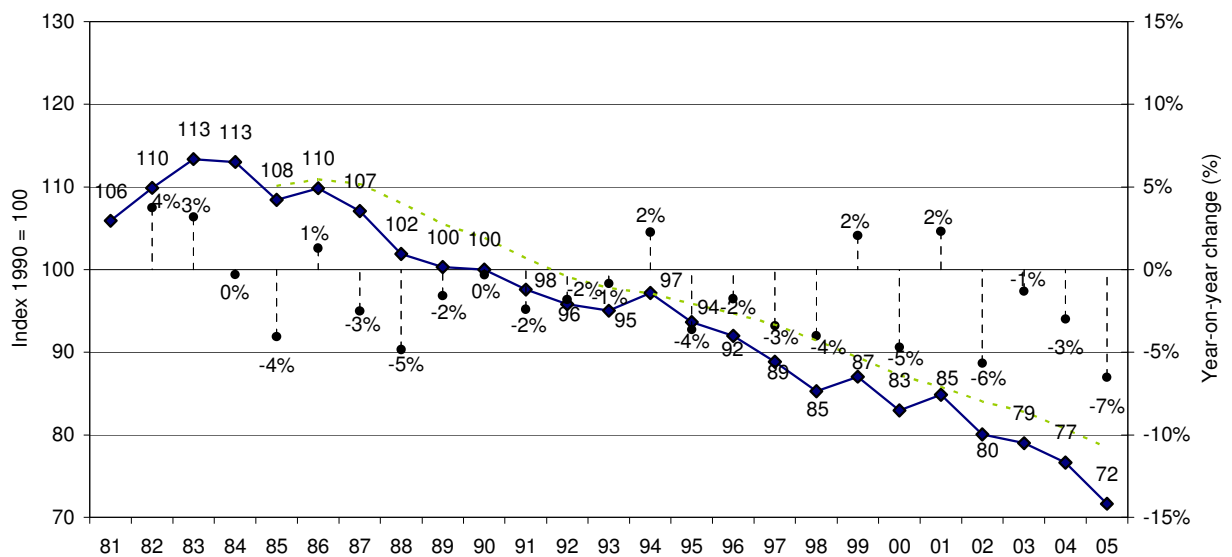
| 2005 | No. in England | No. in Cornwall | % of England ¹ | Ratio ² |
|------------------------------------------|----------------|-----------------|---------------------------|--------------------|
| Dairy cows | 1,311,368 | 73,877 | 5.6% | 1.84 |
| Heifers in 1st calf dairy | 277,014 | 15,180 | 5.5% | 1.79 |
| Female dairy herd replacement 1yr & over | 255,816 | 13,997 | 5.5% | 1.79 |

¹This figure shows the Cornish herd as a percentage of the English herd.

²This figure measures the level of concentration above the national average in the county. 1 is the English average.

Source: Defra June Survey 2005 data.

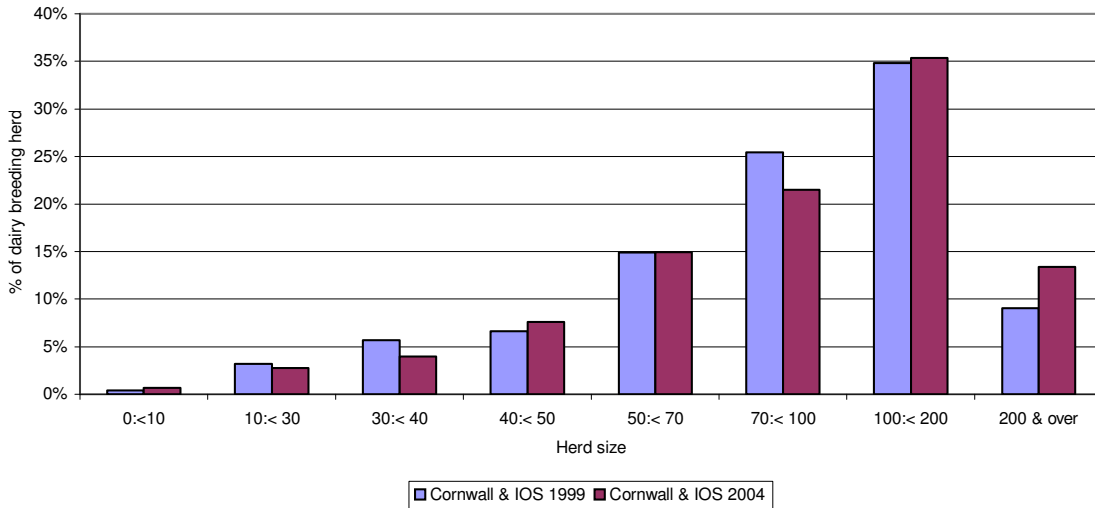
Figure 3.1: Cornish dairy herd, 1981 to 2005



Source: Defra data.

As well as the decline in the dairy herd and increase in productivity, average herd size has been increasing over time. As Figure 3.2 indicates, although the largest herds (200 and over) are still relatively few in number they are the most rapidly growing group in the period 1999-2004. Further evidence of the concentration of production in the dairy sector is found in Table 3.4 which clearly shows, both nationally and within the county, the pattern of larger volumes of quota being located on fewer and fewer farms. Figure 3.3 on the other hand, indicates that Cornwall is slightly behind the national average in terms of herd size.

Figure 3.2: Cornish dairy herd size distribution: 1999 and 2004



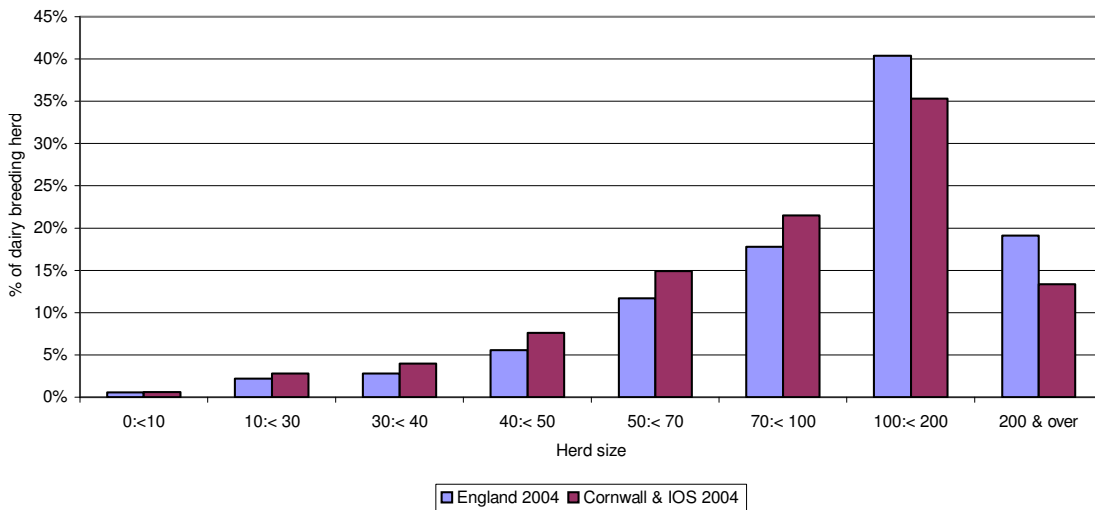
Source: Defra data

Table 3.4: concentration in the national and Cornish dairy sector

| | | 2001/02 | 2005/06 | change | % change 01/02 to 05/06 |
|----------------|------------------------------------|---------|---------|--------|-------------------------|
| Cornwall & IOS | Distinct quota holders | 1113 | 728 | -385 | -35% |
| | Average quota per holder ('000 lt) | 450 | 737 | 287 | +64% |
| England | Distinct quota holders | 19396 | 11552 | -7844 | -40% |
| | Average quota per holder ('000 lt) | 512 | 822 | 310 | +61% |

Source: RPA

Figure 3.3: Cornish and national dairy herd size compared



Source: Defra data

3.3 Dairy goat production

Although of far less economic significance than the cattle herd, Cornwall has a higher than average concentration of dairy goats, representing nearly 6% of the national herd (see Table 3.5). Despite the number of goats in Cornwall, our understanding is that there is only one commercial herd with 150 pedigree British Sannens. Allet Dairy Goats produces milk, yoghurt, cheese and soap and also supplies Nepalese restaurants with meat. The majority of sales take place within Cornwall. The next few years are likely to see an expansion of dairy goat and also dairy sheep production following the development of Davas Yoghurts (also see section 6.7).

Table 3.5: Number of Goats in Cornwall, 2004

| | No. in England | No. in Cornwall | % of England | Ratio |
|-----------------|-------------------|--------------------|-----------------|-------|
| Dairy goats | 31,550 | 1,433 | 4.5% | 1.48 |
| Non dairy goats | 10,048 | 440 | 4.4% | 1.43 |
| Other goats | 36,132 | 1,826 | 5.1% | 1.65 |
| Total goats | 77,730 | 4,341 | 5.6% | 1.82 |

Source: Defra June Survey, 2004 data.

3.4 Routes to market

The two major purchasing companies, Dairy Crest and Milk Link, account for around 97% of all milk produced, however, there is evidence that other small buyers and on farm processors are seeking more direct ex-farm milk as their businesses expand (see Table 3.6). Over the past five years, processing capacity has changed with an increasing demand for Cornish milk in the added value cheese sector due to the improving market demand for mature high quality cheddar, mould ripened cheeses and other speciality cheeses made in the Cornwall.

Table 3.6: Milk purchasing companies and estimated milk purchases

| Milk Purchasing Companies in Cornwall | Current <i>estimated</i> percentage volume of milk collected p.a. |
|--------------------------------------------------|-------------------------------------------------------------------------|
| Milk Link | 48% |
| Dairy Crest | 49% |
| Others [Direct buyers and on farm processors] | 2% |
| OMSCo | 1% |
| Total volume | 100% |

Given the oligopolistic position of milk purchasing in the County, the performance and decisions of the two major purchasing companies impacts on the price paid to producers. The prices paid for milk vary greatly and the average standard price per litre for the two years April/March 2003/4 and 2005/6 is shown in Table 3.7. OMSCo (The Organic Milk Selling Co-operative) the Organic milk purchasing company does have a small operation in Cornwall but it is not possible to accurately determine its average price for Cornwall. The buying prices of Dairy Crest and Milk Link are shown in Table 3.8.

Table 3.7: Average standard price of milk per litre (2003 – 2006)

| | Average standard litre price pa | |
|-------------------|---------------------------------|-------|
| | 2004 | 2005 |
| Cornwall | 18.41 | 18.02 |
| UK | 18.50 | 18.50 |
| Annual difference | 00.09 | 00.48 |

Source: Barry Wilson, Dairy Industry Newsletter

Table 3.8: Milk company buying prices in Cornwall (2003/4 – 2005/6)

| Company | Year 2004 | Year 2005 |
|---------------------------|--------------|--------------|
| Dairy Crest, Davidstow | 19.00 | 18.70 |
| Milk Link | 17.70* | 17.20* |

* before Capital Levy deduction

Source: Barry Wilson, Dairy Industry Newsletter

3.5 Milk imports and exports

The two principal buyers (Dairy Crest and Milk Link) have differing market needs because Milk Link no longer has its own processing capacity in Cornwall as it has just sold its Newlands Dairy [and Peninsula Dairy, Okehampton, Devon] to Robert Wiseman Dairies. Therefore, even though there may be sufficient milk produced in Cornwall to just about meet the total current processing capacity, there is nevertheless a certain volume of milk sold outside Cornwall by Milk Link to alternative buyers as well as servicing its own processing units at North Tawton and Crediton. It is estimated that Milk Link supplies other Cornish milk processors with about 45M litres pa with a further 25M litres pa being used by Newlands Dairy which leaves around 180M litres pa being taken out of Cornwall.

The demand for milk at Dairy Crest, Davidstow, is largely satisfied by volumes coming from Cornwall with additional supplies from Devon. Dairy Crest Direct has been increasing the number of dairy farmer contracts for Davidstow as well as their existing members increasing their own production as illustrated by the milk quota figures above.

Processing capacity in Cornwall has increased and there is approximately 110M litres pa which is still available to use to meet the additional demand for added value products. For the future it will be necessary to use more locally produced milk or to bring in more milk from Devon as well as encouraging Cornish milk producers to continue to increase production as shown over the past three years by all processors.

The location, varying production, demand, and alternative market opportunities outside Cornwall mean that milk is sold to other processors and that trade will continue for some time until Cornish market demand matches available supplies. It is not possible to estimate the value of all sales as the prices are confidential between the buyer and seller. Some by-products, skimmed milk and bulk cream are sold and processed outside Cornwall due to the lack of demand and processing capacity.

3.6 Structure of the Milk Processing Industry in Cornwall

Dairy Crest, Davidstow

- Probably the biggest and most modern cheese creamery in Europe with a designed whole milk processing capacity of 500 million litres a year with linked whey drying capacity .
- Dairy Crest has over the past four years rebuilt the cheddar making facilities and the offices with the aid of an Objective One investment and has increased the milk processing capacity from 300M litres pa to 500M litres pa.
- Davidstow is renowned for its quality cheddar cheese and all whole milk is processed into this product. At full capacity it could make around 50,000 tonnes of cheese per annum into cheddar cheese mainly into the two premium brands, Davidstow and Cathedral City, as well as into some own label products. However, the factory is not yet up to full capacity therefore the value of the cheese sold at current wholesale prices would be in the order of £148m. By-products – whey powder, whey cream and whey butter would add a further £1m and £0.5m respectively giving a potential total cash flow of around £150m.
- According to TNS value data for the year ending 22nd May 2005, Cathedral City is the second most popular branded cheese with 12% of the market, Davidstow has 3.9%, added together they outstrip the biggest brand Dairy Lea which has 12.8%. The branded cheddar market is worth £362m and is growing at 5.5% pa.¹⁹
- All sales are through Dairy Crest sales offices and not carried out locally.

¹⁹ The Cheese Report 2005 published by Dairy Crest Ltd.

A.E.Rodda and Sons

- A world wide brand for Cornish Clotted Cream and the largest manufacturer of the registered product with probably over 90% of the total market supply.
- The company has been awarded Objective One investment towards the costs of the expansion and diversification programme due to be completed by the end of 2008.
- Milk processing is in the order of 30 million litres pa and the ex-farm Cornish milk is purchased through a third party. Products are principally Cornish Clotted cream, all forms of fresh cream and Crème Fraîche.
- Skimmed milk is sold out of Cornwall to other processors.
- Trade is through a plethora of outlets but mainly as a branded product through all the major retailers. There are significant and increasing bulk clotted cream sales to other food manufacturers with many products such as fudge, biscuits and ice cream, being cross branded with the Rodda's logo.
- Van sales include the local delivery of a range of dairy products and other foodstuffs required by small retailers and catering establishments.

Newlands Farm

- Purchased by Milk Link from the Morris family in 2003 and has now been sold to Robert Wiseman Dairies in June 2006 along with Peninsula Dairies in Okehampton for a reported £5.5m. The potential impact on Milk Link shareholders (i.e. dairy farmers) is not known at this stage.
- Primarily a liquid milk processing company operating throughout the West Country with a combined processing capacity estimated to be around 32M litres pa. The surplus cream arising from the liquid market is processed and it is possible that additional investment will be made to enlarge the trade.
- The products offered through a van sales operation are mainly the full range of liquid milks in poly-bottles and various types of cream sold through semi-retail and retail establishments including the catering trade.
- Efforts have been made to establish a local Cornish Milk brand with major supermarkets and with other retail outlets – both the Cornish and Devon brands will be taken over by Wiseman.
- It is expected that Milk Link will provide the new 200M litres pa Wiseman dairy in North Petherton, Somerset which will start processing in 2007 with most of their milk supplies.
- Milk Link will retain their bulk cream and standardised milk trade and service it from their Dairy at Frome, Somerset.

Lynher Farms and Dairies – Pengreep Farms

- Now just one processing unit at Pengreep, making a comprehensive range of semi-hard and soft cheeses, the most famous being “Cornish Yarg” available in most retail outlets in the UK. The range of cheeses has won many national and international awards for quality and innovation.
- The cheese creamery will be increased at Pengreep Farm using Objective One investment.

- Raw milk for processing is purchased through a third party or produced on farm. Processing capacity will be in the order of 6 M litres pa.

Cornish Country Larder Ltd

- Premises taken over in 1997, since then CCL has progressed into a major manufacturer of mould ripened cheeses – Brie and Camembert types – and is now the second largest producer in the UK.
- CCL has expanded its operations and purchased North Bradon Farm in Somerset where it makes a range of hard cheeses most of which had been developed at the Cornish factory and it also processes and packs liquid goats milk
- The Objective One investment in the Cornish factory has meant that it can now be used solely for mould ripened cheeses with the unit working close to capacity at certain times of the year
- New products in the mould ripened cheese sector are continuing to be developed as the UK market continues to increase by around 7% pa and will be around 12,500 tonnes in 2006
- Processing capacity in Cornwall is in the order of 8 million litres pa.

J.Bradley

- A liquid milk-processing dairy using mainly own milk production. The products offered are a full range of liquid milk products in poly bottles as well as semi retail and wholesale volumes of cream in all formats including Cornish Clotted Cream.
- The processing dairy is in North Cornwall and a van sales service offers a range of dairy products many of which are made by local small processors.
- Processing capacity is in the order of 2+M litres pa and increasing.

Trewithen Cornish Farm Dairy

- A liquid and short life dairy products processing dairy purchasing milk direct from local farms. A comprehensive list of products is available offering a full range of milks in poly bottles, Cornish clotted cream (bulk and in retail pots), a full range of other fresh creams for retail and processing, buttermilk for processing and small volumes of crème fraîche and yoghurt.
- Trewithen Farm Dairy has developed a significant market for Cornish salted and unsalted butter in 250 gram and 7 gram packs.
- Dairy product ingredient markets are also being developed both within Cornwall and elsewhere for standardised milks and acidified yoghurt type products.
- Marketing activity and processing capacity has had the benefit of Objective One funding and is now in the order of 3+million litres pa and increasing

Cornish Cheese Company

- The Cornish Cheese Company has extended its range of cheeses to include Cornish Camembert, Tinnors Blue, The Beast of Bodmin and Cornish Farmhouse Brie. The cheeses are particularly in demand in specialist cheesemongers, delicatessens, major supermarkets and independent retailers; some cheeses are exported to North America.
- The Cornish Cheese Co. won first place in the prestigious National Tesco Cheese Challenge award for 2004 and Cornish Blue won Best English Cheese at this year's British Cheese Awards. The Cornish Blue cheese will now be introduced into Tesco stores nationwide.
- Uses mainly own milk supplies and has a notional capacity up to 1 million litres pa.

Menallack Farmhouse

- Produces a range of hard semi-hard and soft cheeses using a range of differing milks – buffaloes and ewes (not necessarily locally sourced), goats (locally sourced) and cows.
- Cheeses are also bought in from other local manufacturers as Menallack offer a wholesaling facility.
- Notional processing capacity up to 1 million litres pa.

Toppenrose Dairy

- A farm cheese-making unit recently completed with the assistance of Objective One investment. Toppenrose Dairy produces fresh and mould ripened cheeses in various forms but the principle product is Toppenrose Gold – a soft cheese with added Jersey Cream which has already won several prestigious awards. Other award winning products include St Keverne's Square, Smoked brie and Toppenrose soffee
- Milk is produced on the farm with a notional processing capacity up to one million litres pa.

Whalesborough Farm Foods

- Produces a range of fresh, semi-hard and hard cheeses sold mainly in Cornwall but also to major retailers.
- Milk is purchased from a local farm and Whalesborough has a notional processing capacity up to one million litres pa.

Gwavas Jersey Farm

- A developing company making a range of liquid milks in glass bottles and in poly bottles, Cornish clotted cream, other creams in wholesale and retail containers and a range of yoghurts.
- Offers a wholesaling facility for local cheeses and carries out a van sales operation for retailers and catering establishments mainly in West Cornwall. Has a local retail round.

- The company has recently won an important contract with Cornwall Healthcare Trust to supply whole and skimmed Jersey milk yoghurts in individual portion containers to be consumed by patients.
- Jersey milk is sourced from the farm and non Channel Islands milk from a third party. Notional processing capacity is up to 1million litres pa.

Barwick Farm

- Produces a range of liquid milks in poly bottles, clotted cream and butter from milk from their own herd of organic Jersey cows.
- Notional processing capacity less than 1M litres pa.

There are many other on farm milk processors such as Dairy Land, Newquay who work at a local level producing a wide range of products but mainly Clotted Cream.

3.7 Ice-cream processing in Cornwall

In recent years high quality Cornish ice-cream has taken a larger share of both the local and national market as the production volume had increased and brand identity made inroads into the luxury market. Due to the closure of Richmonds Ice Cream Bude (and the movement of production to other units outside of the West Country), sales growth will not reach forecasted levels²⁰. However, other companies have invested in new plant and equipment and will make up the lost capacity over the next five years.

3.8 Ice-cream Producers (see also Confectionery)

Kelly of Bodmin Ltd

- The largest producer focussed on the Cornish market with branded products sold in local shops and a considerable van sales force. As the seasonal profile of tourism is changing the business is becoming less seasonal. Uses milk and cream from processors in the County.
- Kelly's have used Objective One investment to increase production and storage capacity and have been successful in winning national contracts.
- Milk and cream is sourced locally by a Cornish dairy Company

Callestick Farm Cornish Dairy Ice Cream Ltd

- Uses milk produced on own farm with some bought in cream.
- Ice cream capacity has been significantly increased with the help of Objective One investment and many of the traditional farm building have been

²⁰ As Richmonds did not source milk from within Cornwall local suppliers will not be affected by their closure.

renovated and the ice cream production has been moved into a purpose built unit.

- Important contracts have been won with the Cornwall Healthcare Trust to supply a whole range of small individual portion ice creams.
- Callestick has a van sales force and services many outlets in the South West

Roskilly Ice-cream

- Produces ice-cream and fudge using milk from their own organic herd of Jersey cows.
- Ice-cream is sold throughout Cornwall through retail outlets but volume sales are now being won further a field.
- Processing capacity has been significantly increased with Objective One investment and Roskilys are looking to source additional organic Jersey milk from local farms.

3.9 Routes to market

The routes to the market place are as diverse as the businesses within the sector, from national market place leaders to small craft producers selling to local residents and visitors. A range of Cornish cheeses – Cathedral City, Cornish Yarg, Cornish Country Larder's Brie and Camembert and The Cornish Cheese Company's Cornish Blue are all available through major retailers through the UK. Some of the new cheese makers products have been recognised by the major retailers and they have broken into the UK market albeit in a limited way.

3.10 Styles of food businesses

The styles of businesses are as distinct as the products being produced, ranging from very large multi-product public companies, such as Dairy Crest, to family owned and run businesses processing milk produced on the family's farm, such as Toppenrose Dairy.

All the milk processing companies interviewed displayed a growth-orientated approach to their business. This attitude has encouraged and given confidence to milk producers to increase their herd size and to buy more milk quota. There is a distinct divergence between those businesses seeking to supply the multiple retailers with a standard product, whether branded or not, and those seeking to supply a high quality, niche product. Cornish businesses are trading on the Cornishness of their products and the perceived food quality that is inherent within the county. This perception has been helped enormously by the number of very high quality restaurants and chefs getting TV exposure, including Jamie Oliver's Fifteen development at Watergate Bay, not to mention Rick Stein's promotion of the food industry in Cornwall through his presence in Padstow.

3.11 Trends, developments and critical issues

The milk processing industry has a distinctive and growing role in the food economy of Cornwall as it mostly processes milk produced in the county and has a close relationship with the county's producers. With the Objective One investment matched by companies own resources the processing industry has developed and is continuing to develop. Significantly, unlike other many other English counties, Cornwall has an increasing milk supply which is being used not for commodity products but for high added value cheeses, yoghurts, ice creams and many other innovative food products.

There is, of course, a link between cattle feed, milk and the taste and quality of the end product. Once processed many of the resulting products are either market leaders or award winners or both, representing a success for Cornish produce and value added in the county. At last count, Cornwall was producing just under 50 different types of added value cheese coming from at least 10 cheese businesses with still more products and businesses in the pipeline. Although several of the products have a brand that is greater than, or distinct from, their Cornish identity all prominently display their Cornish origins.

The more complex processed milk products, in particular ice-cream, remain dependent on some supplies from outside of the county, such as sugar and fruit. Ice-cream producers are prepared to buy local fruit, but only if it is available at a consistent quality and in suitable quantities. At present, purchasing of local fruits appears to be based on opportunistic buying.

There appear to be some difficulties in balancing local sourcing with local marketing. Most product sales are targeted out of the county because the market for the premium products being produced within the county is relatively small. The importance of out of county sales for premium products is a trend apparent across all the sectors covered by this report.

4 Marine fisheries

4.1 Background

The fleet fishing out of the ports of Cornwall and the Isles of Scilly is the most economically important in the Southwest region. In turn, Cornwall is more reliant on the fishing industry than any other county in the region. Significantly, compared to some other sectors, sea fishing represents an important source of export income for the county. The distinctive quality of the Cornish fishing sector can be summed up in one word: diversity. The huge range of species (over 40) makes Cornwall very distinctive due to its geographical location (further south and west) and access to warmer waters. Compared to other parts of the country there is also a greater range of boat sizes and a greater diversity of fishing gears (8-9). Collectively, this diversity is a great strength and asset to Cornish fisheries.

In 2006 Cornwall had 576 registered fishing vessels, although not all were active. Over 80% of these vessels were less than 10 metres in length (see Table 4.1). The most important port in Cornwall is Newlyn, which has a concentration of the larger trawlers in the fleet, the highest number of jobs and processing facilities. Of the 262 jobs in the Cornish fish processing sector, almost half (124 or 47%) are located in Newlyn. Small ports such as Looe, Mevagissey, Padstow and St Ives also have a significant number of fishing vessels working from them. Data is not readily available on the number of fisherman in Cornwall. The 2003 socio-economic baseline study commissioned by PESCA suggests a little over 1000 full and part time fisherman, although the latest data from the Marine Fisheries Agency indicates a total of 1020 full and part-time fisherman in the SW region as a whole in 2005 (MFA 2006).

During 2005 12,493 tonnes of fish were landed in Cornwall from over 40 different species, caught by a wide variety of means and by a diverse range of boat sizes. Although economically the most important form of fishing is beam trawling, Cornwall also has boats specialising in netting, potting and hand-line fishing. The total value of the landed catch in 2005 was just over £26.5m. Processing and distribution add considerably to the value of fish landed (see below). The top 20 species by value account for 92% of the total value of fish landed in 2005. As the largest port, Newlyn accounts for 74% of the landed value of fish followed by Looe and Falmouth (both with approximately 11% of the value of the catch) and then Padstow with 6%.

Table 4.1: The Cornish fishing fleet, 2006

| | Number of vessels | | |
|--------------|-------------------|------------|------------|
| | < 10m | => 10 m | Total |
| Boscastle | 1 | 0 | 1 |
| Bude | 7 | 0 | 7 |
| Falmouth | 34 | 6 | 40 |
| Fowey | 9 | 0 | 9 |
| Hayle | 0 | 2 | 2 |
| Looe | 31 | 18 | 49 |
| Mevagissey | 69 | 4 | 73 |
| Newlyn | 107 | 66 | 173 |
| Newquay | 18 | 5 | 23 |
| Padstow | 22 | 5 | 27 |
| Penzance | 5 | 0 | 5 |
| Polperro | 9 | 4 | 13 |
| Port Isaac | 16 | 2 | 18 |
| Porthoustock | 9 | 0 | 9 |
| Portleath | 14 | 0 | 14 |
| Portleven | 19 | 0 | 19 |
| Portlooe | 6 | 0 | 6 |
| Scilly isles | 23 | 0 | 23 |
| Sennen | 15 | 0 | 15 |
| St Ives | 48 | 0 | 48 |
| St Mawes | 2 | 0 | 2 |
| Total | 464 | 112 | 576 |

Source: Seafish data.

The marine fishing sector in Cornwall is split between a few very large operators and a larger number of small operators. Long established family businesses remain particularly important and while the largest operator out of Newlyn owns over 35 vessels, the majority of vessels are operated by their owners. While the diversity of the Cornish fishing sector is one of its defining characteristics, the large boats play a particularly important role, working in all weathers, ensuring continuity of supply and thus underpinning the market and the processing sector.

4.2 Routes to market & distribution channels

There appears to be a close integration between basic fish processing, the distribution of fish and some of the larger companies involved in landing fish. Within the wider Cornish food economy this degree of integration is quite distinctive. A socio-economic investigation of the sector undertaken by EKOS and Nautilus consultants (2003) report that, unlike many of the other sectors of the food economy, merchanting plays an important role in the fishing industry. Those involved in the merchanting of fish effectively act as commodity traders in fish, generating added value for themselves, but also reducing the risk for those catching the fish. In terms of the economic contribution of the sector, EKOS and Nautilus suggest that activity in the merchant sector contributes around 30% gross value added, suggesting a turnover for the SW of £31m in 2001 and a GVA of £7m. By 2005 these figures are estimated to have increased to £36m and £8m respectively.

Merchanting remains a relatively opaque activity as regular survey data is not collected and the nature of the business means that merchants are unwilling to share information as this may prejudice their business activities. However, the merchants interviewed for this project confirm the complexity of the business, integration between business and the significance of the export market. While some of the larger merchants have annual turnovers of several million, many are nevertheless family owned business that have already been passed down the generations.

The bulk (70%) of the Cornish catch (by value) is exported to the national and international market. In part, this is due to the wide range of species caught and the fact that many are not popular (or even known) in the domestic market. The main markets for fish caught in Cornwall are in France, Spain, Italy and Portugal, with the UK national market playing a smaller role and the Cornish market representing an even smaller share. That said, there are now 3 or 4 merchants specialising in the local restaurant market.

As fishing represents the most international of all the food industries in Cornwall, distribution is an important part of the industry, with ferries to the continent playing a major role. Merchants use a mixture of their own fleet of distribution lorries, haulage firms and, in some cases, private courier services. In turn, this leads to criticism of the county's road network and also high expectations for improvements following the programme of work on the A30.

4.3 Smokehouses

The smokehouses in the county, which adopt a higher profile than the fish processing businesses, are very different. To date the smokehouses appear to be reliant on farmed fish, principally trout farms and Scottish salmon. They are involved in direct marketing to major urban centres through mail order, trade fairs and the Internet. The principal distribution mechanism used was sales

representatives in London. That is not to suggest a lack of interest in supply the local market although some reported limited interest from local restaurants and chefs who, it was claimed, are less keen on local sea trout and have a preference for Scottish salmon. That said, one reported being helped by having his business named on menus by local chefs and a number of interviewees mentioned benefiting from the 'Rick Stein effect'.

As with many business, interviewees reported not being able to source specialist equipment locally but were keen to source locally and support the local economy where possible. Indeed, compared to the original survey for the 2003 report, these businesses were now more closely linked to the local economy although out of county sales still remain most important for them as does imported fish (particular Scottish salmon). The businesses had grown in the last 3 years and there is clearly potential for further growth. Where future growth was not planned this was often to do with lifestyle choices or other business commitments.

4.4 Trends, developments and critical issues

The Cornish fishing industry remains reliant on catching wild fish rather than farming or cultivation. This means the supply of fish and shell-fish is of paramount importance and questions of maritime conservation and management are largely under EU control. While some expressed a desire for 'more autonomy' from Brussels, there are also signs that bottom-up initiatives such as the St Agnes voluntary "No Take Zone" are proving important. Since 2003, the creation of Seafood Cornwall has provided support for the development of a sustainable fishing industry. Specifically, it aims to raise consumers' awareness of the diversity, abundance and quality of seafood; to raise standards throughout the fishing industry "from net to plate" and to create a sustainable, environmentally aware fishing industry. While many of the impacts of Seafood Cornwall are intangible, it has played a clearly beneficial role through its support of the development of the line caught Bass initiative (see below) which is associated with a higher price for fish. Through its benchmarking activities Seafood Cornwall has assisted the improvement of quality standards and, with other organisations, it has helped encourage the multiple retailers to source and promote Cornish fish.

The market has grown in the last few years and seems set to continue to do so with one large seafood business reporting a 25% increase in sales over the last 3 years. In part this is due to some distinctive Cornish developments such as the Rick Stein, Eden and Tate St Ives 'effects', the latter, in particular, being cited as improving winter sales. Many of the businesses that have grown recently have benefited from Objective One assistance. Indeed some have received multiple grants in support of the development of new product lines and purchases of new equipment.

Although it may be difficult to describe all Cornish landed fish as a genuinely local product, the importance of the Cornish brand is important and there are concerns that any attempts to develop a wider SW brand may threaten the uniqueness of the image of Cornish fish. As in other sectors, traceability is becoming increasingly important and initiatives such as tagging line caught bass²¹ are helping traceability from 'hook to plate'.

While the local market for fish has developed in the last few years some interviewees cited tough competition from other local suppliers as a barrier to increasing local supply, particularly in the context of a strong international market. That said, local initiatives are trying to 'educate' consumers to appreciate the benefits of alternative fish species and can assist in the creation of a larger local market for fish. The lack of skilled local labour also appears to be a problem for some businesses (e.g. lack of skilled filliters). Nevertheless, the future is likely to see further expansion, development of new product ranges such as pre-packaged fish meals and possibly greater attention to the development of local retail outlets.

²¹ For more information on this initiative from The South West Handline Fishermen's Association go to www.linecaught.org.uk

5 Horticulture

5.1 Background

The geography and climate of Cornwall gives it a distinct advantage in horticultural production, providing an earlier and longer growing season than many areas of the UK. The farm gate value of the highly diverse and active horticultural sector has been estimated at around £60 million with value added thought to amount to a further £13m (including non-food crops). Potatoes, herbs, fruit and vegetables are estimated to be worth approximately £31m in farm gate prices.

The horticulture sector has been assisted through a number of public support initiatives. For instance, under Objective 5b Cornish horticulture benefited from £9m of investment, which led to considerable improvement in the technical aspects of production. Objective One has seen a further £6m of investment in the sector through the operation of Cornish Horticultural Enterprises (CHE). CHE have provided funding for a large number of projects and businesses, improving skills, developing markets and brands and investing in improved equipment and facilities.

5.2 Potato production

Cornwall is famous for its early potatoes but it is also a significant producer of later potato varieties. UK production of potatoes remains fairly static, although the effects of fluctuations in climate can greatly affect the quality of the crop. As can be seen in Table 5.1, close to 11% of England's early potatoes are grown in Cornwall, nearly four times the level of production that might otherwise be expected. *The area of maincrop potatoes has increased from under 2000ha in 2002/02 to over 2300ha in 2005.*

Table 5.1: Potato production in Cornwall and England

| | Ha. in England | Ha. in Cornwall | % of England | Ratio |
|-------|----------------|-----------------|--------------|-------|
| Early | 10,496 | 1,137 | 10.8% | 3.53 |
| Main | 91,910 | 2,362 | 2.6% | 0.84 |

Source: CHE, 2006 and Defra data.

The early and salad potatoes are the most valuable variety of the crop grown in Cornwall on a large scale. However, a recent development has seen one company growing seed potatoes for their own use and for sale (data on area involved not available). Seed potatoes give better yields and greater income/tonne. Cornwall is also a significant producer of other potato varieties (see Table 5.2). Whilst some of the main crop is grown for retail sale nationally a large proportion is grown on contract for crisp snack production. *The total area of potato production appears to have declined marginally since 2002/03.*

Table 5.2: Cornish potato supply and use: estimates for 2005

| | Area (ha) | Yield (t/ha) | Tonnes | £/ tonne | Value (£m)* |
|----------------------------------------|-----------|--------------|--------|----------|-------------|
| Earlies | 491 | 14.8 | 7,300 | 400 | 2.9 |
| Salads | 633 | 22.2 | 14,100 | 280 | 3.9 |
| Main crop | 971 | 29.6 | 28,700 | 105 | 3.0 |
| All potatoes | 2095 | 23.9 | 50,100 | 197 | 9.9 |
| Cornish consumption | | | 50,300 | | 3.9 |
| Cornish production as % of UK (volume) | | | | 0.9% | |
| Cornish production as % of UK (value) | | | | 2.2% | |

Source: CHE, 2006

*The value of Cornish consumption has been estimated based on UK potato prices.

Leaving aside the small and recently developed seed potato sector, of the varieties of potatoes grown in Cornwall, the more expensive crops are exported while the main crop potatoes are sold locally or to supermarket packers. The seasonality of the early crop in particular would make it difficult to market locally in its entirety. Value added to potatoes through packing and transport is estimated at £1 million. The 'Cornish King' brand is well established in potato production with at least 3 producers licensed to use to the brand.

Close to 1000ha are also grown on contract for UK crisp factories. In addition, Stuart's Westcounty crisps produce premium hand cooked crisps using Cornish potatoes, although the crisps are currently manufactured outside of Cornwall due to the lack of processing facilities locally. Most of the crisps are sold in Cornwall

through independent retail outlets and tourist attractions, including the Eden Project. In the first 4 months the business used 4.5 tonnes of potatoes to produce 9000 bags of crisps. This business is relatively small but as it grows it may offer a route to market for some of the county's smaller potato producers.

5.3 Vegetable production

Overall vegetable production has declined in the UK in the last 20 years despite fairly stable prices. Detailed historic data is not available at a county level against which to make comparisons so it is unclear to what extent production levels in Cornwall have followed or diverged from national trends. That said, whilst nationally the importance of production under glass has increased significantly, vegetable production in Cornwall tends not to be under glass, with field crops such as cauliflowers, greens and summer brassicae being important and Swede being used extensively in the production of savoury pastries.

Accessing accurate data on vegetable production can be problematic. Defra figures underestimate the amount of vegetable production in Cornwall as the same fields can be used for more than one crop in a year. The Defra June Survey records only one of those crops. Local knowledge and expertise from Cornish Horticultural Enterprises therefore provides a more reliable picture of the state of the industry in Cornwall. In 2005 over 2000 ha were planted with winter cauliflower (that's 25 million head!), over 700 ha with spring greens and 668 ha with other brassicae (see Table 5.3). A wide range of other vegetables are grown on a much smaller scale for more local markets. *2005 data is not available in the same format as that used in the 2003 report making comparisons difficult. That said, there appears to have been a reduction in the area of vegetable production, with the area of cauliflower production alone falling by some 9%.*

Table 5.3: Cornish vegetable supply and value of consumption, 2005

| | Area | Value |
|--------------------|--------------|-------------|
| Summer brassicae | 668 | 4.6 |
| Winter cauliflower | 2,003 | 6.7 |
| Spring greens | 712 | 2.9 |
| Total | 3,383 | 14.2 |

Source: CHE

5.4 Fruit production

At first glance, the climatic advantages of Cornwall might suggest that fruit production would be an obvious and well established industry. Yet figures from the June agricultural survey reveal Cornwall to have very low levels of fruit production. Unfortunately, the data are not reliable at a county level (due to underreporting and very small sample size) and are consequently not presented

here. Cornwall is generally perceived to be poorly suited to top fruit production, particularly apples, which are damaged by the winds coming off the sea. That said, historically, the area of apple orchards would have been considerably larger and recent years have seen a resurgence of interest in growing Cornish apples (or at least growing apples in Cornwall). Although the county is a net importer of apples for cider production (only about 1/3 being sourced from within Cornwall), a new orchard renaissance initiative may encourage the restoration of existing neglected orchards.

5.5 Processing and packing

In total, the 6 businesses interviewed for this research employed over 150 FTEs and had a combined turnover in excess of £14m. They ranged from relatively small, specialist businesses focusing on the markets of Cornwall (and to a lesser extent Devon) to large businesses supplying the national economy. Although it is possible to distinguish between those packing vegetables for the wholesale and retail markets and those processing vegetables, in several cases the distinction between grower, packer and process was blurred with a number of business involved in all activities to various degrees. The complexity of the sector is reflected in a complex web of interaction with local and national supplies and an equally wide ranging sales and distribution practices.

In terms of local sourcing, individual businesses reported figures of 5%-100% for produce. Figures in the lower range reflected businesses processing 'exotic' fruits but also the shortage of apples and other fruit and vegetables simply not available in sufficient quantity in Cornwall. These businesses often sourced the bulk of their produce from fruit and vegetable markets in Bristol.

The other main inputs are labour, equipment and packaging materials. Unlike some sectors, such as fish processing, where the shortage of skilled labour has been identified as a problem, accessing labour does not appear to be an issue in the horticulture sector, although there was a suggestion that it can be difficult to get temporary staff at short notice during busy periods. The apparent easing of the labour problems previously faced by this sector could be due to the increasing significance of migrants workers from New Member States of the EU. Data on this issue is scarce but anecdotal evidence suggests that migrants from Eastern Europe, in particular, are increasingly important in undertaking 'hard to fill' jobs in the farming and food sector (see section 9.3 for further information).

Processing and packing equipment was largely purchased from outside of Cornwall, sometimes being imported from elsewhere in Europe although several interviewees stressed that they try to use local servicing facilities as far as is possible. Many would also like to source packaging materials locally but are unable to. There was some suggestion from interviewees of a greater potential to engage with the local economy if given sufficient support and encouragement. To some extent, those who were already focused on the national economy were

'out the loop' of more locally focused initiatives. For instance, some respondents stated that they had received little or no information regarding local trade shows. Although the season has been extended due to the impact of large scale visitor attractions and the development of a local restaurant culture there was a feeling that for some, who are deliberately pursuing a policy of local sourcing and local sales, the winter is still a quiet time although initiatives such as the development of Hayle harbour are expected to help address this issue.

5.6 Trends, developments and critical issues

One of the most interesting recent developments is the Healthy Boxes scheme which was initiated by Penwith District Council in June 2005. Predominately focused on the most deprived wards of Penwith and Kerrier, the aim of the project is to make fresh, locally produced fruit and vegetables easily accessible to families and residents most distant from the food chain. The Healthy Box contains eight pieces of fruit and vegetables, an information card with an appropriate recipe to match the contents, as well as tips on healthy eating and food storage, and a children's toy to engage the whole family with the box. To date, approximately 46,000 boxes have been produced with an average of 350 per week.

According to the annual report for 2005-06, the delivery of Healthy Boxes has:

- Assisted growers by providing a guaranteed market for their produce
- Given residents the confidence to buy and cook fruit and vegetables
- Given residents a healthier lifestyle
- Given residents a platform for a long term healthier future

The packing of the boxes has been contracted to Richards of Cornwall and vegetables and fruit are supplied by a range of local producers, with approximately 70% grown in west Cornwall. The project has funding to 2009 and is actively involved in bidding for funds for an extension beyond that time. For further information visit: www.healthyboxes.com/.

Most of the businesses interviewed had experienced pronounced growth over the last 3-4 years. One highly specialised business reported a 40% growth in sales in the last 3 years and another pointed to a doubling of sales each year since 2000, with 37% growth in last year alone. These reports are consistent with the general impression of a burgeoning food economy and food culture in recent years.

Behind the general picture of growth and expansion however, some respondents pointed to a more complex state of affairs and were keenly aware of the impact of intense local competition. In addition, unfavourable movements in the price of fresh fruit has meant stable sales (in terms of value) for some grower-processors and attempts to deal with this by expanding the range of products on offer.

Objective One funding appears to have been particularly important in supporting the growth and development of the sector with 4 out of 6 respondents reporting receipt of at least 1 Objective One grant. While Objective One funding grant aid has been used to support product development and new equipment purchases, Taste of the West was cited as providing marketing assistance. Interestingly, one respondent from a rapidly growing business, which had received a 20% grant for new facilities, argued that the biggest effect of Objective One has been its impact on encouraging outlets to source Cornish produce and hence contribute to increasing demand.

In discussing future developments with respondents it was clear that the short term is likely to see a mixture of consolidation and expansion of product lines. A number of respondents spoke of trying to achieve sustainable growth or being 'forced' to stabilise due to strong competition. Others were planning to increase value added activities and take steps to overcome issues associated with seasonality. The area of vegetable and salad crop production may increase on the Isles of Scilly as part of a local food and farm diversification programme. The idea is to offer farmers an alternative to flower production through trials of new varieties and to assist in the development of alternative crops such as carrots, marrows, lettuce and chillies.

As with other sectors, "the state of Cornish roads" was identified as a barrier to future development. Another factor was the disposition of the business principal. These are largely family owned and operated businesses and, whilst further growth potential was recognised, some were content to balance their business with their family life.

6 *Meat and poultry*

6.1 Background

Traditionally, livestock production in Cornwall was based on a mix of livestock enterprises on one farm. Although this pattern is still found, in common with the rest of the UK there has been a movement towards specialisation and concentration. In 2005 there were approximately 3470 livestock holdings in the county covering the production of meat from poultry, pigs, sheep and cattle. Of these there were approximately 1955 holdings with lowland cattle and sheep and 508 raising upland cattle and sheep. *Comparing these figures with the 2002 data used in the original report indicates a loss of some 500 holdings during this period. However, the extent to which this is a 'real' reduction as opposed to 'paper' reduction resulting from changes in response rate is unknown.*

The production of meat in the county can be differentiated between the majority of production sent straight into processing for manufactured products, and an emerging but nevertheless significant sector of high quality, direct sales.

The introduction in 1995 of Fresh Meat Hygiene Regulations created two tiers of meat processing facilities:

- (a) 'Full throughput' abattoirs, which are able to process upwards of 20 European livestock units (ELU) (1 cattle unit, 10 lambs, 5 pigs) per week. These units fully comply with the regulations and can export red meat.
- (b) 'Low throughput' units which can slaughter up to 20 ELU a week but can only supply the UK domestic market.

In Cornwall, there are presently 11 abattoirs: 6 'Full Throughput' and 5 'Low Throughput' units (Cooper Simms et al 2004). In addition, planning approval has recently been granted for a low throughput abattoir in the Isles of Scilly²². In addition, in May 2006 Kilhallon Quality Meats Ltd were awarded an Objective One grant to refurbish the currently redundant Kilhallon abattoir. Investment in new buildings and equipment will provide a full throughput multi-species abattoir to include game and organic meats and thus meet the changing needs of the meat industry. Table 6.1 provides further information on the county's existing abattoirs (excluding Grampian Country Foods). As can be seen, the larger full throughput plants tend to focus on supplying supermarkets whereas the low throughput plants frequently source and supply on a much more local scale (also see Cooper Simms et al 2004).

²² As far as we are aware the abattoir has received planning approval but is still awaiting the outcome of an Objective One funding bid.

Table 6.1: Abattoirs in Cornwall and Isles of Scilly

| | Jaspers & Sons Ltd | Jaspers (Treburley) Ltd | K & D McFadden | Mardron Meat Co Ltd | Nanteague Farm Abattoir | R J Trevarthen Wholesale Butchers | Richards Ltd | St Merryn Meat | T H Lobb | Vivian Olds |
|----------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|---------------------------------|------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------|
| Species slaughtered | Lamb, cull ewes | Cattle | Cattle, lamb, pigs | OTMS cattle ¹ | Cattle, lambs | Cattle, lamb, pigs | Cattle, lambs, ewes, pigs | Cattle | Cattle, Pigs, Lambs, Ewes, Goats, Deer | Cattle, lambs, pigs |
| License type | Full throughput slaughter house. Organic license (lamb) | Full throughput slaughter house & cutting plant. Organic license | Low throughput slaughter house & cutting plant | Low throughput slaughter house. Full throughput cutting plant | Low throughput abattoir | Full through put abattoir & cutting | Full throughput slaughter house | Full throughput slaughter house & cutting plant. Organic license | Low throughput slaughter house & cutting plant. | Low throughput slaughter house. Organic |
| Procurement | 75% from within SW | 80% from SW | Own stock & local producers | Farmers, producer groups & agents | Own cattle, local farmers groups and individual farmers | From individual local producers | From individual local producers | St Merryn Producer Club, producer groups & individual producers | Direct from local farmers | Cornwall. Only organic |
| Throughput | 500,000 lambs/year | 25-35,000 cattle/year | Cattle: 8/week Pigs: 15/week Lambs: 15/week | Pre 1996 OTMS cattle: 1000/wk | Cattle: 10/wk Lambs: 30/wk | Prime cattle: 70/wk Lambs: 400/wk Pigs: 200/wk | | Av 1500/wk prime cattle | Cattle 65/month Sheep: 160/month Pigs 207/month | |
| Destination | 30-40% Tesco, 15% Waitrose, 15% Sainsbury | Wholesalers & then on to supermarkets. Don't know how much branded as SW or Cornish | Producers own consumption & farmers markets | | Producers own consumption, butchers & wholesalers | Own customers, local butchers & wholesalers | | Mainly Tesco. Branded as 'west country beef' | Own use and butchers | Own butchers, local deliveries and UK box scheme |

¹ License for post 1996 OTMS not used at moment

Source: EFPF, 2005 and telephone survey.

As is clear from Table 6.2, with the exception of beef cattle, there has been a decline in the number of animals being kept in the county. These changes are largely in line with national trends. *The marginal increase in the beef herd since 2001 may reflect a trend for producers to cease milk production and replace dairy cows with beef cows* (also see Figure 6.1). It should be noted that beef numbers are still below those recorded in 1990. *Over the short term (since 2003) beef and pig numbers have increased while sheep and dairy numbers have declined.*

Table 6.2: Livestock numbers 2001-2005

| | 2001 | 2002 | 2003 | 2004 | 2005 | % change 2001-2005 |
|-------------|---------|---------|---------|---------|---------|-----------------------|
| Beef herd | 43,805 | 39,227 | 42,022 | 43,704 | 45,321 | +3% |
| Dairy herd | 87,513 | 82,549 | 81,460 | 79,029 | 73,877 | -16% |
| Total pigs | 39,847 | 38,181 | 31,980 | 35,145 | 37,477 | -6% |
| Total sheep | 575,228 | 521,136 | 525,057 | 528,105 | 519,812 | -10% |

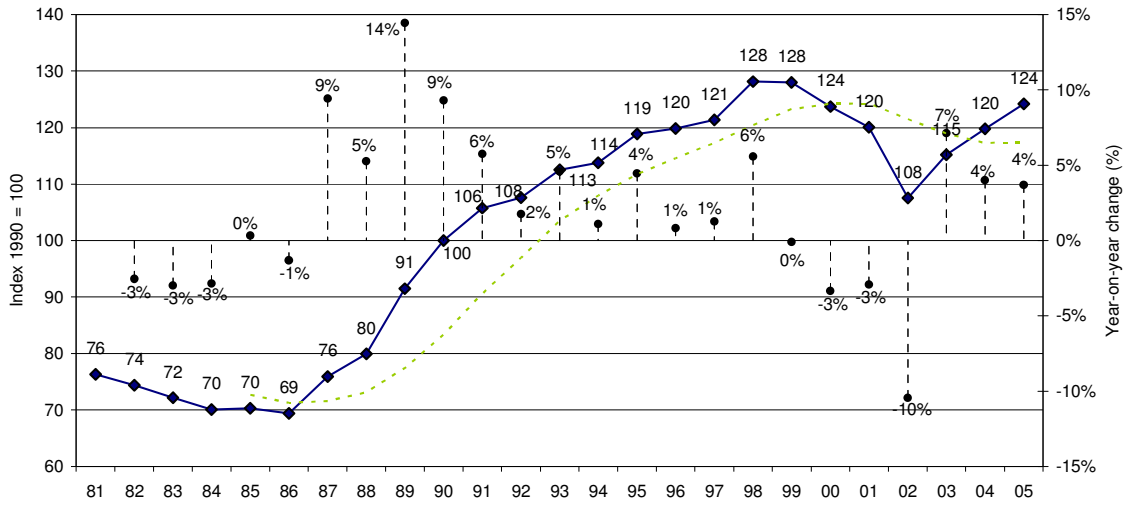
Source: Defra June Survey data.

6.2 Beef (and veal) production

The average beef herd in Cornwall is 25 animals, just below the national average of 26. Changes in support measures in recent years have significantly increased the proportion of dairy calves being grown-on to enter the beef market. More than half of the clean cattle slaughtered are from dairy herds rather than beef suckler herds. These animals tend to be ill suited to high quality beef production and represent an on-going issue in the beef sector that has yet to be effectively addressed. The increasing demand for veal has seen a new enterprise developed, as a by-product of a Jersey cow dairy business, using bull calves that were previously shot at birth.

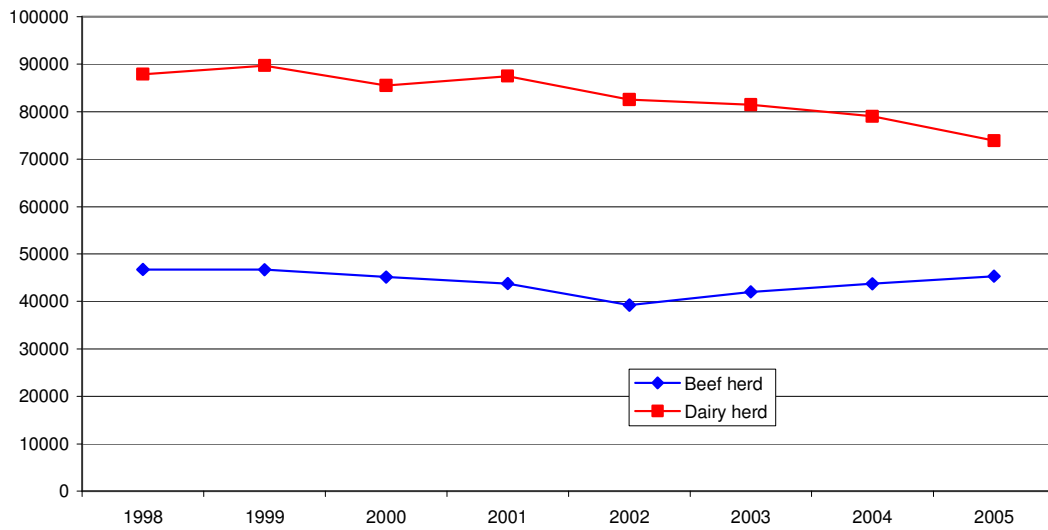
As Figure 6.1 indicates, following the introduction of headage payments in 1986 the Cornish beef-breeding herd grew steadily until the late 1990s when it went into a sharp decline, although as noted above, this has now been largely reversed. There is of course a lag of about two years between changes in herd numbers and changes in beef supply. As Figure 6.2 illustrates, the Cornish beef and dairy herds are now moving in divergent directions.

Figure 6.1: Beef breeding herd in Cornwall 1981-2005 (indexed)



Source: Defra June Survey data.

Figure 6.2: Cornish Beef and Dairy numbers 1998-2005



Source: Defra data.

In 2005, the estimated production from Cornish breeding stock was around 22,600 tonnes dressed carcass weight, an increase of 15% since 2002 (see Table 6.3). This is equivalent to approximately 14,700 tonnes at retail. Although not possible to quantify exactly, the county is also a net importer of store animals for finishing but these have not been included in the calculation of beef output above. Calculating the 'Cornish' element would in any case be problematic as it would involve estimating the value of the store animals coming in to the county as a proportion of its end value. Based on UK consumption figures, beef consumption in Cornwall is substantially less than total supply, leaving a surplus of some 12,000 tonnes with a market value in the region of £21 million²³, making the Cornish beef sector a significant earner of export income for the county.

Table 6.3: Cornish beef supply and use 2005¹

| | Dressed carcass weight, tonnes |
|-------------------------------------------------|---------------------------------------|
| Total production | 22,600 |
| Total domestic use | 10,600 |
| Surplus (deficit) | 12,000 |
| | £m |
| Value of production* | £ 40 |
| Value of surplus (deficit) | £ 21 |
| Cornish production a % of UK production | 3.0% |
| UK production as % of UK domestic use | 74% |
| Cornish production as % of Cornish domestic use | 213% |

¹Estimates based on calculations based on methodology and coefficients supplied by MLC Industry Strategy Consulting.

*Market price, does not include subsidies

Source: Defra data.

As Table 6.4 shows, Cornwall has a greater concentration of beef animals than the national average. This is in part a reflection of the importance of dairy farming in the county, but it is also a reflection of the advantage Cornwall has in producing grass and large numbers of beef animals.

The outlook for UK beef production is complex. Whilst the impact of CAP reform is frequently seen to make beef production less economically attractive, the combination of the end of the Over Thirty Month Scheme (OTMS) and resumption of beef exports signify new opportunities. The NFU report that across the EU beef production is projected to fall by 5% between now and 2013 (www.nfuonline.com/x9794.xml). They also report that "Steady consumer demand and tight domestic supply are expected to result in firm EU beef prices over the next seven years".

²³ This may be a slight over-valuation as no adjustment has been made for the higher proportion of pure dairy animals in Cornish marketings, which have a lower value. In addition, it should be noted that in this and other similar cases quoted in subsequent sections, where figures for Cornish consumption are given these are estimates of consumption by the resident population and do not take into account consumption by tourists.

The end of OTMS means that tens of thousands of cattle will re-enter the food chain. A number of Cornish abattoirs have been approved to process OTM cattle including St Merryn and Jaspers. The resumption of beef exports is particularly significant given a situation of undersupply within the EU25. The value of the beef export market at the time of the ban has been estimated at between £500 and £600 million. The MLC forecast exports in the region of 30,000 tonnes in this first year with the main customers for cow beef being the Netherlands and France. The NFU's quarterly *State of Agriculture and Horticulture* report for October 2006 states that 700 tonnes of beef per week is now regularly exported to 11 EU member states (roughly equivalent to the MLC forecast).

Table 6.4: The number of beef animals in Cornwall¹, 2005

| | No. in England | No. in Cornwall | % of England | Ratio |
|---------------------------------------------|-------------------|--------------------|-----------------|-------------|
| Dairy females | | | | |
| Dairy herd | 1,311,368 | 73,877 | 5.6% | 1.84 |
| Heifers in 1st calf dairy | 277,014 | 15,180 | 5.5% | 1.79 |
| Female dairy herd replacement 1yr & over | 255,816 | 13,997 | 5.5% | 1.79 |
| Beef females | | | | |
| Beef herd | 752,160 | 45,321 | 6.0% | 1.97 |
| Heifers in 1st calf beef | 88,671 | 5,602 | 6.3% | 2.07 |
| Female beef herd replacement 1yr & over | 132,356 | 8,841 | 6.7% | 2.18 |
| Bulls | | | | |
| Bulls 2 yrs & over | 35,793 | 1,947 | 5.4% | 1.78 |
| Bulls 1yr & under 2yrs | 11,847 | 576 | 4.9% | 1.59 |
| Other cattle over 1 year | | | | |
| Female over 2 yrs for slaughter | 88,033 | 7,439 | 8.5% | 2.76 |
| Female cattle 1yr & under 2 yrs | 409,681 | 26,235 | 6.4% | 2.09 |
| Male over 2 yrs | 165,699 | 15,938 | 9.6% | 3.14 |
| Male cattle 1yr & under 2 yrs | 590,917 | 42,414 | 7.2% | 2.35 |
| Other cattle and calves under 1 year | | | | |
| Intended for slaughter under 1 yr | 15,102 | 779 | 5.2% | 1.69 |
| Female calves under 1 yr | 743,484 | 42,452 | 5.7% | 1.87 |
| Male calves under 1 yr | 649,207 | 40,087 | 6.2% | 2.02 |
| Total cattle | 5,527,147 | 340,685 | 6.2% | 2.02 |

¹Estimates from Defra data.

Source: Defra data

6.3 Beef processing

There has been a division emerging between the full throughput abattoirs, which supply the multiple retailers and often have meat cutting facilities as part of their facilities, and the smaller low throughput plants, which tend to supply the local market (see Table 6.1). In 2005 Cornwall Quality Livestock sent 85-90% of its cattle through the St Merryn and Jasper plants. Organic Livestock Farmers of Cornwall & Devon, the independent 'organic' arm of CQLP, provide a range of services for organic producer members and reflects the growing importance of the organic meat sector in Cornwall (see below).

6.4 Goats, Venison and other ‘novel’ livestock production

As well as a higher than average number of dairy goats (see Table 6.5), Cornwall also has a larger than average number of commercial non-dairy goats. These animals are presumed to be part of the specialist supply of ethnic diets within the UK, although little data is available. Cornwall currently has only one commercial goat herd producing milk, yoghurt, cheese and soap (using goat milk). The kids are supplied to Nepalese restaurants via a local abattoir. Approximately 95% of sales are made within the county and the business is “about producing Cornish food for Cornish people”.

Table 6.5: Goats in Cornwall 2004

| | No. in England | No. in Cornwall | % of England | Ratio |
|-----------------------|-------------------|--------------------|-----------------|-------|
| Non dairy goats | 10,048 | 440 | 4.4% | 1.43 |
| Other goats | 36,132 | 1,826 | 5.1% | 1.65 |
| Total non-dairy goats | 46,180 | 2,266 | 4.9% | 1.60 |

Source Defra June Agricultural survey, 2004 data.

In our 2003 report we stated that “Cornwall has a far higher number of farmed deer than the national average representing over 10% of the English national herd”. Unfortunately, Defra no longer produce data on farmed deer so the current position of this sector is unclear. Alongside venison, other speciality meats such as wild boar and ostrich are available from some Cornish producers. Supply tends to focus on a mix of markets ranging from multiples through to direct deliveries to smaller retailers, farmers markets, restaurants and courier delivery to final consumers.

6.5 Sheep production

As most sheep are raised on mixed livestock farms they share similar patterns of production efficiency and outcomes as beef animals. The average size flock in Cornwall consists of approximately 150 breeding ewes, compared to an average of around 170 for England as a whole. Although average flock size is slightly smaller and there are also fewer very large flocks than the national average, there is an above average concentration of breeding ewes in the county (see Table 6.6).

Although the production of sheep in Cornwall is conducted on a diverse mix of farming systems and farm sizes, it ‘funnels’ toward a very tightly controlled link to the multiple retailers. The focus on serving the national food economy has shaped the production of lambs within the county with an emphasis on meeting the quality standards of the multiple retailers. Tesco maintain a dominant position within the county and changes in buying decisions can dramatically affect the proportion of in county and out of county sales.

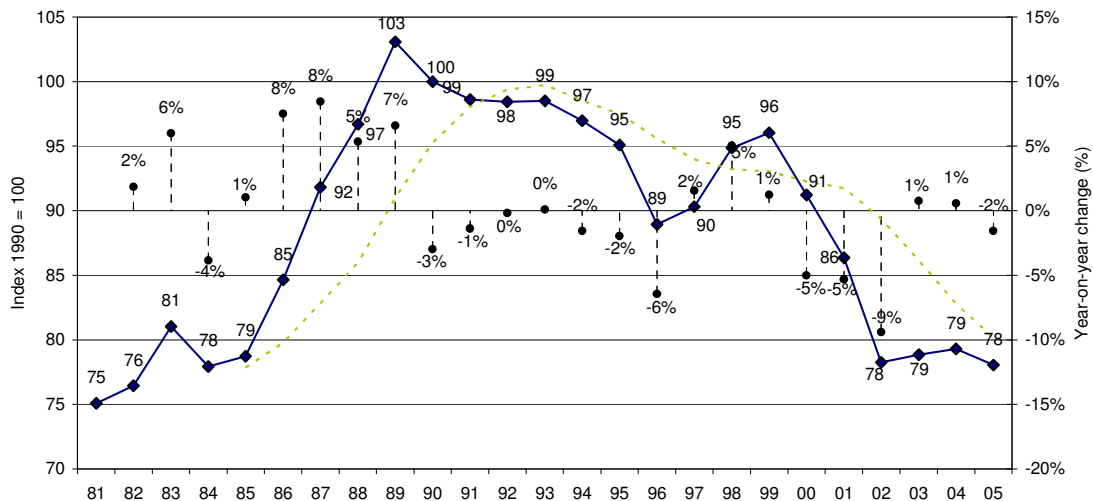
Table 6.6: Number of Sheep in Cornwall, 2005

| | No. in England | No. in Cornwall | % of England | Ratio |
|----------------------|-------------------|-----------------|--------------|-------------|
| Ewes | 6,408,222 | 232,317 | 3.6% | 1.19 |
| Other breeding sheep | 880,289 | 25,269 | 2.9% | 0.94 |
| Rams | 191,561 | 6,768 | 3.5% | 1.15 |
| Other sheep | 357,232 | 10,800 | 3.0% | 0.99 |
| Lambs under 1yr | 8,040,147 | 244,659 | 3.0% | 0.99 |
| Total sheep | 15,877,451 | 519,812 | 3.3% | 1.07 |

Source: Defra June Agricultural Survey, 2005 data.

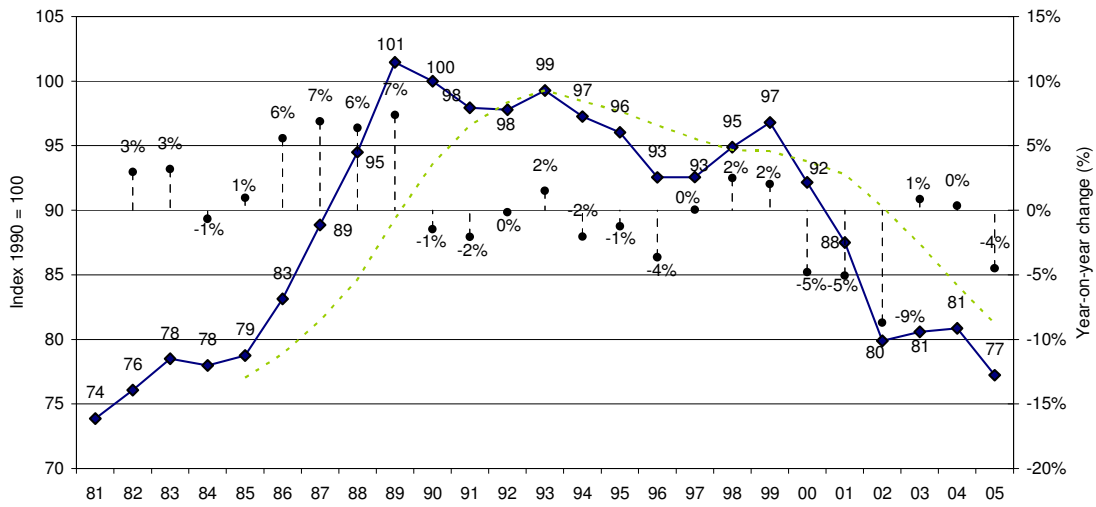
Until the latest round of CAP reforms, and the introduction of the SPS, the trend in UK sheep meat production has been closely linked to the support regimes, the Sheep Annual Premium (SAP) and the Hill Livestock Compensatory Allowance Scheme (HLCAs). The huge increase in the Cornish flock from 1985 to 1989 can be directly attributed to 'headage' payments (see Figure 6.3). Since 1992, a system of quotas on headage payments has operated which has effectively reined back breeding flock numbers. A step decline in sheep numbers since the late 1990s has left sheep numbers at a similar level in 2005 to that in 1981 (see Figures 6.3 and 6.4). The decline in the overall numbers of sheep in the county (see Figures 6.3 and 6.5) may reflect a combination of changes in the subsidy system, market trends and the wider restructuring of the agricultural sector.

Figure 6.3 Cornish sheep numbers (all sheep), 1981 to 2005 (indexed)



Source: Defra data.

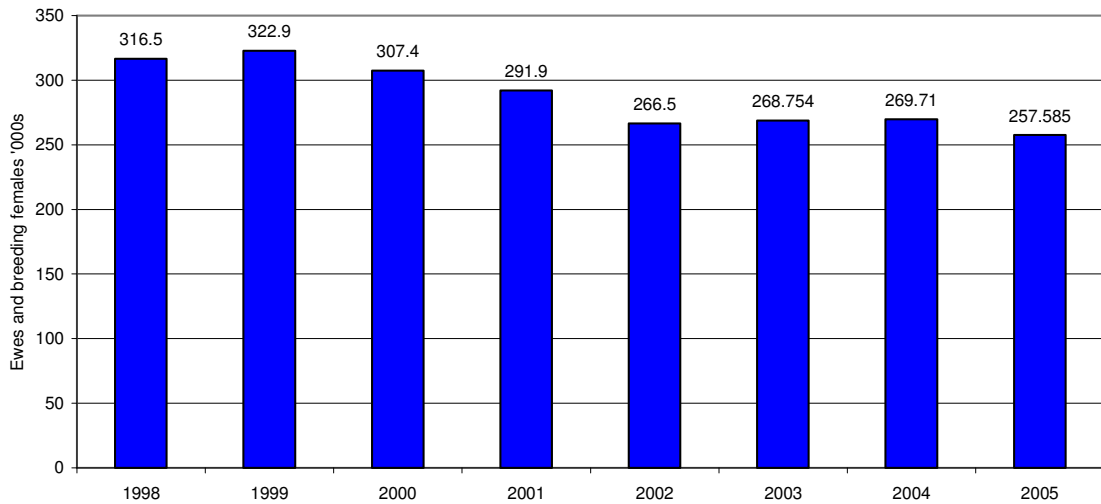
Figure 6.4: Cornish breeding ewe flock, 1981 to 2005 (indexed)



Source: Defra data.

¹The green dotted trend line indicates a five year average, showing the trend within the overall figures.

Figure 6.5: Cornish sheep breeding flock 1998 to 2005 (numbers)



Source: Defra data.

Cornwall is probably a net importer of animals for finishing. The proximity of processing facilities may mean that animals are brought into the county, making it hard to establish their 'Cornishness'. In 2005 the estimated production of lamb and mutton *from Cornish breeding stock* was around 4800 tonnes of dressed carcass weight (*a 4% fall since 2002*), of which 3900 tonnes (80%) would have been lamb (see Table 6.7). This is equivalent to about 2600 tonnes of lamb meat at retail. If the resident population of Cornwall eat lamb at the same rate as the rest of the UK there would be a surplus of some 1635 tonnes, with a market value in the region of £3.4 million. This indicates that the surplus of lamb would be about 1300 tonnes, equivalent to approximately 900 tonnes at retail.

The prospects for sheep meat in Cornwall are likely to be very similar to those for the UK as a whole. Recent downward pressure on lamb and cull ewe prices are expected to be reversed according to the MLC. The very recent and marked increases in domestic sheep supply are expected to fall and this, coupled with increasing domestic consumption of lamb and modest growth in export volumes, suggests a greater equilibrium between supply and demand. Nevertheless, the MLC's overall forecast is that the market is set to be 'fair'.

Table 6.7: Cornish lamb and mutton supply and use, 2005¹

| | Tonnes dressed carcass weight (tonnes) |
|-------------------------------------------------|-----------------------------------------------|
| Lamb marketings | 3900 |
| Cull ewes and rams | 900 |
| Total production | 4800 |
| Total domestic uses | 3165 |
| Surplus (deficit) | 1635 |
| | £m |
| Value of lambs | 9.7 |
| Value of culls | 0.3 |
| Value of production | 10.1 |
| Value of surplus (deficit) | 3.4 |
| Cornish production as % of UK production | 1.5% |
| UK production as % of UK domestic use | 88% |
| Cornish production as % of Cornish domestic use | 151% |

¹Estimates based on calculations based on methodology and coefficients supplied by MLC Industry Strategy Consulting.

*Farm gate, excluding subsidies.

**Assumes consumption of lamb and cull meat is in the same proportions as production

Source: Defra data.

6.6 Routes to market & disposition to local sourcing

Tesco is the most important multiple retailer taking lambs from the Cornish Market. Jasper and Son and St. Merryn both hold contracts to supply Tesco with lamb. Cornwall Quality Livestock Producers send up to 80% of their lambs to these companies. Other producers are making use of a variety of

marketing mechanisms including direct sales to guest houses, restaurants, end users and farmers markets and food shows

As Cornwall produces twice as much lamb as it consumes, the meat processing businesses have a solid base for 'exporting lamb' from the county. These relationships are based on contracts with one major retailer and so could be subject to radical revision if that relationship changed. As one interviewee noted "If Tesco decide they're not selling British that month we have to find an alternative abattoir". The irony is that most Cornish citizens are likely to buy Cornish lamb through a multiple retailer, making them a leading but long distance local supplier. Although lamb production is predominately focused on the national market (and is hence an earner of 'export' income), smaller specialist producers are supplying the local market through direct deliveries to customers and retail outlets as well as through farmers markets.

The sheep producers interviewed for this research were highly committed to local sourcing where possible although in some cases this may mean local purchasing rather than locally produced inputs. In contrast to most interviewees across all sectors, one specialist producer of sheep milk products was even able to source equipment that was manufactured only 2 miles from the farm!

6.7 Style of businesses

The production of lamb is largely conducted by family businesses, many of which have been established for generations and are typical of the Cornish agricultural industry. Although the slaughtering and processing of the animals is largely conducted by large private companies, a number of smaller family businesses are now involved in producing and processing lamb (and other meat products) through in-situ butchery, processing and packing facilities.

In addition, new developments such as Davas Yoghurts and Cheeses²⁴, supplying the wholesale and retail sectors in Cornwall with sheep milk products, indicate that there are new markets and opportunities for those with the necessary skills and ability and who are willing to take a risk and actively develop a new market.

6.8 Pig Production

Pork production across the EU but particularly in the UK has been facing severe price competition making it sensitive to even small fluctuations in trading conditions. 2005 Defra June survey data indicates that there were 71 specialist pig producers in Cornwall whereas the figure for 2004 was 63. It is not possible to look at trends over the longer term as previously the farm type category used by Defra was 'pigs and poultry'. Prior to the introduction of the new farm type category pig production had declined dramatically in Cornwall

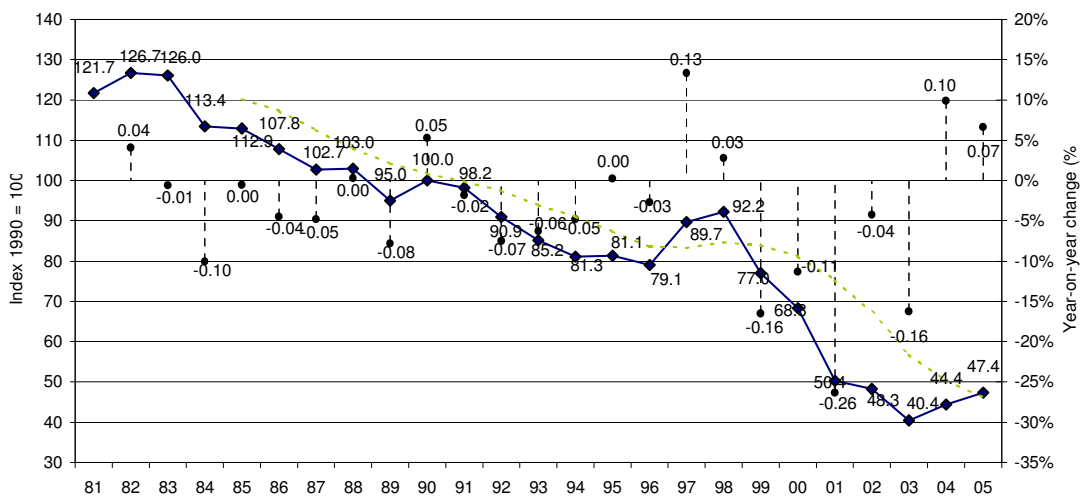
²⁴ Established through diversification of an established family farm.

with a 35% decline in businesses, compared to a national decline of 15% in the decade to 2003.

The pig units that remain are characterised by their small size. In 2005 there were approximately 300 breeding herds with an average of 16 sows compared to the national average of 73 sows per unit. Interestingly, compared with the situation at the time of our original report, Cornish breeding herds have declined by an average of 11% compared to a 19% decline nationally. Nevertheless, Cornwall has far lower numbers of pigs than the national average, which has resulted in several processors and retailers calling for an increased supply of pigs in the county. Very few pig units in Cornwall have more than 500 pigs. This leaves the Cornish pork industry in a poor position to respond to large scale processing demand in the short term. The decline of the Cornish pig herd over a 24 year period is illustrated in Figure 6.6.

The overwhelming reason for this decline is the cost of transportation to Cornwall in the face of extreme competition in the pig market. The costs of transporting feed and bedding have added 3-4 pence per kilo dead weight, a prohibitive cost in the pig industry. As Table 6.8 indicates, Cornwall now suffers from a marked under-supply of pigs compared to the national picture (i.e. ratios of well below 1.0). Nevertheless, as Figure 6.7 shows, the number of sows and gilts in pig has risen since 2003.

Figure 6.6: Cornish pig herd, 1981 to 2005 (indexed)



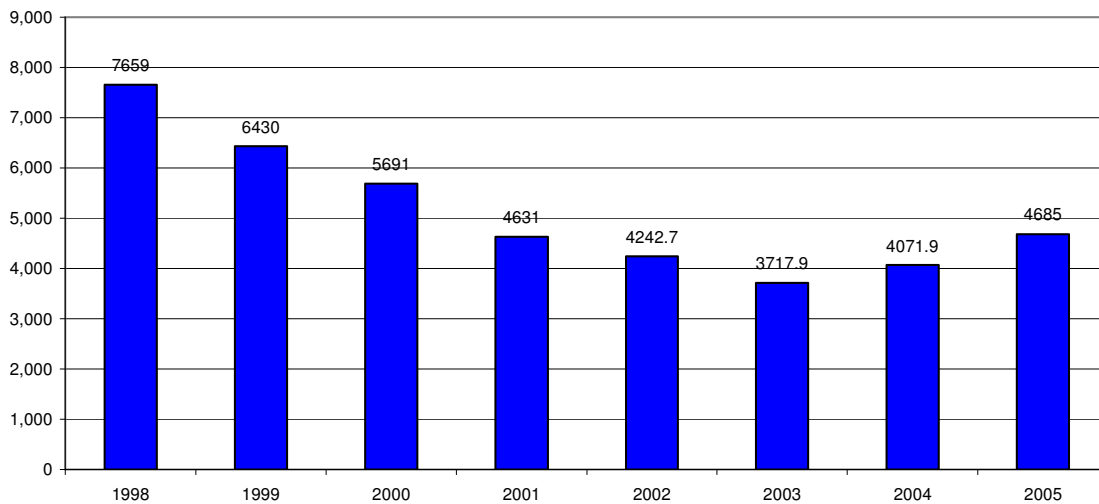
Source: Defra data.

Table 6.8: Number of Pigs in Cornwall, 2005

| | No. in England | No. in Cornwall | % of England | Ratio |
|---------------------------|----------------|-----------------|--------------|-------|
| Sows in Pig | 261,366 | 3,043 | 1.2% | 0.38 |
| Gilts in Pig | 57,847 | 665 | 1.1% | 0.38 |
| Other Sows | 66,994 | 977 | 1.5% | 0.48 |
| Total pig breeding herd | 386,207 | 4,685 | 1.2% | 0.40 |
| Boars for service | 16,964 | 251 | 1.5% | 0.48 |
| Gilts | 55,820 | 552 | 1.0% | 0.32 |
| Barren sows for fattening | 6,350 | 147 | 2.3% | 0.76 |
| Pigs over 110kg | 40,144 | 384 | 1.0% | 0.31 |
| Pigs 80kg to 110kg | 544,544 | 5,866 | 1.1% | 0.35 |
| Pigs 50kg to 80kg | 850,505 | 8,391 | 1.0% | 0.32 |
| Pigs 20kg to 50kg | 1,004,226 | 8,472 | 0.8% | 0.28 |
| Pigs under 20kg | 1,054,721 | 8,729 | 0.8% | 0.27 |
| Total Pigs | 3,959,480 | 37,477 | 0.9% | 0.31 |

Source: Defra June Survey, 2005 data.

Figure 6.7: Cornish sows and gilts in pig, 1998 to 2005 (numbers)



Source: Defra data.

Cornwall is an importer of pork, because not enough pork is produced locally even if routes to market were in place. Cornish domestic consumption would support a pig industry twice the size of the present one (see Table 6.9).

Table 6.9: Cornish pig meat supply and use¹

| | Dressed carcass weight (tonnes) |
|-------------------------------------------------|--------------------------------------------|
| Clean pigs marketings | 6200 |
| Sows and boars | 400 |
| Total production | 6600 |
| Total domestic uses | 12300 |
| Surplus / deficit | -5700 |
| | £m |
| Value of clean pigs | 6.4 |
| Value of culls | 0.2 |
| Value of production | 6.6 |
| Value of surplus / deficit | -5.7 |
| Cornish production as % of UK production | 1.0% |
| UK production as % of UK domestic use | 47% |
| Cornish production as % of Cornish domestic use | 54% |

¹Estimates based on calculations based on methodology and coefficients supplied by MLC Industry Strategy Consulting.

Source: Defra data.

6.9 Routes to market and disposition to local sourcing

Large-scale pig producers are involved in large producer co-operatives to ensure that they retain as much of the value of the product as possible. The only pig-producers' co-operative operating in the county is Thames Valley Cambac (formerly Thames Valley Pigs) which is supplied by 10 farms in Cornwall, with pigs of a value of approximately £3.02 m supplied from the county in 2005. While the number of suppliers has fallen by 4 since 2003/03, the value of the pigs supplied has risen by £0.7m. The pigs supplied are slaughtered in either Devon or at the Dalehead Foods site near Bristol with the meat being sold by the abattoir to supermarkets.

Despite the declining pig production sector, the very recent past has seen the growth of Cornish businesses supplying pork products and the entry of new businesses into the sector. Two new businesses selling processed pork products (air dried hams, sausages, etc) are in the earliest stages of development (both under 2 years old) but were already employing 6 FTEs, generating strong sales and looking to expand their operations in the future. Unlike many other business principals interviewed for this project, neither were from part of a Cornish farming family.

Both businesses sourced 90-100% of their product locally although specialist equipment was sourced out of county and in both cases 75-80% of sales were within Cornwall. Some of this was through mail order, farm shops, direct supply to delis and restaurants and some through farmers markets. The latter was seen as a potentially important source of sales but it was alleged that certain farmers markets appeared to operate a 'closed shop', only allowing a single pork producer a place at any one time. Although this had an impact on morale and was seen as holding the business back, these new businesses

were nevertheless keen to play a role in the development and promotion of a local food culture in Cornwall.

Longer established producers of pork products (along with other rare or specialist meat products) reported rapid growth in the last 3 years. One business reported a 25% increase in turnover over the last 3 years while another well known and long established local meat business has seen a 369% increase in the volume of business since 2004.

6.10 Trends and developments in meat retailing and distribution

As noted above, although much of the production of meat is tightly integrated with supply to the multiple retailers, and this route to the market remains overwhelmingly the most economically important one, there has nevertheless been pronounced growth in various forms for direct supply to the local (Cornish) economy and to a lesser extent, further a field in the region. The emerging market in direct supply to local end consumers, hotels, restaurants and retailers has helped fuel the growth experienced by some of the smaller producers in the last few years. While some are effectively able to tap in to the tourist market another respondent argued that, whilst there is strong support for “local food” in Cornwall that it is “not really a tourist market [it] is a local food market”. Either way, these businesses (ranging in size of turnover from £60,000 to £0.6m) have experienced strong growth largely focused on sales within the county. Where sales have grown outside of Cornwall it has often been a reflection of the greater population density in the neighbouring county of Devon (along with some dissatisfaction with the number, quality and operation of farmers markets in Cornwall). As noted above, one business operator referred to the alleged “gate keeping” of a local farmers market acting as a barrier to participation and consequently impacting on sales and business development.

All of the growing businesses have worked hard to generate sales and there is no single approach that can be singled out as offering a sales growth blueprint. Word of mouth remains important, even for some of the larger businesses, as is PR rather than advertising per se. There was a mixed response to the utility of trade shows (although most still attended them), while other events such as food and drink festivals were seen as important (particularly for helping to establish some of the newer businesses). There was also some concern and criticism surrounding use of the internet. While some businesses appear to have comprehensive and well functioning websites, others found that after investing in website design that the site did not perform as well as expected. Others simply argued that the internet market was already “swamped”.

The networks of production and supply comprise existing food businesses, farmers interested in direct supply to consumers and new entrants processing and selling specialist products. These businesses form part of an increasingly important network of local producers and allied businesses and, according to one respondent, facilitating the development and maintenance of such

networks was the most important role that organisations such as Taste of the West could play.

None of these systems of supply is reliant on external certification or approval (such as in the organic sector) but rather on direct contact with the farmer/butcher and a bond of trust built with the consumer. Although very proud of the Cornish provenance of their produce, the most important marketing tool is the quality of the produce and the link between producer and consumer. One of the factors facilitating the development of the directly supplied quality meat sector has been the formulation of local procurement policies by the Royal Cornwall Hospital Trust, the Eden Project and latterly Jamie Oliver's 15 academy. All hold contracts with local suppliers and are part of the growing network of suppliers and consumers of locally produced food. Fifteen Cornwall's procurement policy is to source at least 80% of ingredients from local suppliers. (In the course of this research we have interviewed approximately one third of the listed suppliers to Fifteen Cornwall.)

The majority of the meat producers and processors contacted for this research had benefited from support initiatives. Objective One had provided grant aid for buildings and equipment purchase, Taste of the West had provided support through PR, shows and support in applying for grant aid, and Business Link had provided additional support. Individual businesses had often benefited from all 3 sources: "(we've) had funding from Business Link, Objective One and Taste of the West. All have offered super support for the company" (operator of new specialist meat product business)

The future seems likely to see a mix of further growth (particularly for the successful newer businesses) alongside consolidation and upgrading of facilities. Growth is planned for both existing product lines and new product lines. Some businesses appear to be looking for grant aid to support these developments while others will use other funding mechanisms. Some producer/processor/retailers plan to rationalise by co-locating the individual elements of their business while others, who hold a portfolio of business interests, are seeking to develop and exploit linkages between different businesses (such as farm based tourism and farm based processors and food sales).

The main barriers to growth relate to the size of the local market and the economics of transportation associated with a peripheral geographic location. Three interviewees also voiced concerns regarding farmers markets in Cornwall. In addition to the "gate keeping" comment reported above, another stated that Cornish farmers markets were "very closed" and consequently the business was focusing more on farmers markets in Devon. Another producer who had started to concentrate more on Devon simply felt that Cornwall lacked sufficient "good" farmers markets.

6.11 Poultry

As the Taste of the West *Review of the UK Food Market* makes clear, chicken has become an increasingly important and popular food, valued for its price, convenience and healthiness. The poultry sector generally is dominated by a relatively small number of very large scale producers who are often reluctant to allow information about bird numbers to be publicly available. This means that we have not disclosed all of the information we have collected on this sector. In addition, at the time of our original report we expressed some concerns about the reliability of Defra data. It is the opinion of an expert poultry advisor and the research team's statistician that this data is now, if anything, less reliable²⁵ and it has been decided not to repeat the statistical analysis contained in the 2003 report. The combination of the unreliability of Defra data and the relatively 'closed' nature of the sector means that much of the detail remains rather opaque. Given that there are however, a large number of small producers involved in this sector, alongside a handful of medium and large businesses, some further investigation appears warranted but is beyond the resources of the current research.

Trends in poultry numbers in Cornwall are heavily influenced by the decisions and fortunes of a few key producers. For instance, numbers increased in association with the Objective One funded expansion of Camel Valley Poultry which went into receivership in 2004. The factory was subsequently taken over by a business from outside of Cornwall but that business also failed and, to the best of our knowledge, the factory is currently laying idle. In addition, there is also a perception that it is becoming more difficult to gain planning permission for free range egg production sites to the extent that the county's and the region's position as a major producer of free range eggs has been eroded over the last decade.

6.12 Eggs

Large scale egg production in Cornwall is dominated by the facility at Horizon Farm. This business has several hundred thousand laying birds (possibly accounting for half of all laying birds in Cornwall) in a unit which we understand is currently in the process of switching to barn production. We understand that eggs are packed for national supermarket chains and through this process locally produced eggs are sometimes available to Cornish consumers.

Although there are no other Cornish businesses operating on such a scale, there are a large number of smaller businesses involved in egg production and/or packing. In a third party submission to the Competition Commission Inquiry into the merger of Stonegate and Deans Foods, Nigel Laphorne of Laid in Britain Ltd, reports opening an egg grading and packing operation in Liskeard three years ago. The business has rapidly grown and now supplies 3,500 cases per week. Mr Laphorne goes on to state that he has "not found it

²⁵ It has been estimated that there may be as much as 20% disparity between actual and recorded production. At the county level, non-response by even one or two major producers would make a very significant difference to the overall picture.

difficult to find supplies of free range eggs". A relatively small proportion (approximately 15%) are sourced from Cornwall, with many eggs supplied from elsewhere in the SW region and processed at other facilities operated by the company. This business, which is probably the largest of the medium sized packers, effectively fills the gaps left by the large national companies and supplies butchers, pubs, village shops etc with locally and regionally produced eggs. Another medium sized business (Colin Carter Eggs) supplies a lot of smaller shops (e.g. farm shops, corner shops and convenience stores) with barn and free range eggs.

At the far end of the size spectrum there are also a large number of free-range and organic eggs being sold directly, particularly to visitors during the summer. Many of these are small farm diversification enterprises or small owner-operator businesses and they effectively compete in a completely different market compared to the large national companies.

6.13 Poultry meat

The demise of Camel Valley Poultry, the absence of suitable processing facilities and the logistical difficulties associated with transportation to out of county processing facilities mean that Cornwall is far from self-sufficient in the production of poultry meat (although we are unable to quantify the deficit). We understand that the majority of the producers that supplied Camel Valley Poultry have since ceased production. One large regional processor has only a single Cornish supplier (located relatively close to Devon) as the costs and transport logistics of supply from further west make the transaction unviable, particularly in the summer due to congestion on the roads. One business, producing organic meat, vegetables and ready meals, reported that although they had previously sourced all their inputs from Cornwall, since their local poultry supplier went bust they now have to source organic chickens from East Devon.

We are aware that one producer has recently gone into free range poultry meat production having spotted a gap in the market. Another relatively new business (Bolton Free Range Poultry and Eggs) supplies free range Cobb chickens direct to Fifteen Cornwall and other local food businesses. Another gap in the market has been filled by the recently established Cornish Duck Company. This business sells mostly to high quality restaurants in the county (and hopes to eventually expand to serve a similar market outside of Cornwall). Few sales are made through local shops. In the press release associated with the launch of the business, one of the business partners stated that: "*We want the 'Cornish Duck' brand to be associated with a select, quality product. In the future we would like to see it being served up in top restaurants throughout the country but we have no plans for supplying shops or supermarkets*". We understand that the company focuses on the restaurant market because they appreciate the product and have a high demand for it.

7 The organic sector

7.1 Background

Although the organic sector shares many of the same challenges and opportunities as the wider agricultural sector, it has a significant advantage in that the market for organic food continues to boom, offering considerable prospects for Cornish organic producers. After a quiet period, caused in part by the change in the support regime, the organic retail market has resumed its rapid growth – 30% in the last year. This means that for over a decade the retail market for organic produce has grown consistently, often outstripping domestic supply. In 1996 the national retail market for organic food was worth approximately £200 million. In 2005 it was valued at £1.6 billion, a 30% increase from the previous year, and early figures from 2006 indicate that this rapid growth is continuing. The multiple retailers account for 76% of all organic sales, or £1.2 billion in retail sales. This figure grew by 31% in 2005, after growth of only 1.5% in 2003/4.

Retail sales outside of the multiple retailers are split between producer retailers (8%) and non-producer retailers (16%), with the strongest growth (38%) in 2005 taking place in the latter. This may represent an element of consolidation in the market place, but non-producer retailers may also be drawing on processed and/or imported organic products and to an extent may be engaged a different market segment to producer-retailers. Outside of the multiples the most valuable marketing routes in the organic sector are Box Schemes/Mail Order at £95 million (with growth at 22% in 2005) and Farm shop/Farm gate sales valued at £258 million in 2005 (with growth of 32% in 2004/05). Whilst certainly not a mature market, the organic sector can no longer be considered as a fad or short term feature of the food market and as such represents a considerable strategic opportunity for farm businesses and agricultural communities.

The South West of England is the 'home' of English organic farming in terms of the area of land managed organically and the number of producers. England currently has 2,785 registered organic producers and growers of which 41% are located in the SW and 162 (or 6%) are located in Cornwall. Of the 239,986 hectares of organic land in England, 11,365 hectares are located in Cornwall, representing 4.73% of all organic land in England. Within Cornwall, just over 4% of farmed land is under organic management. The average size of an organic farm in Cornwall is 70.16 hectares, which is over 3 hectares smaller than the average in 2002 and 30 hectares smaller than the national average for organic farms.

7.2 Organic production and marketing

Cornish organic farms are mostly involved in red meat production, with the second largest group being in dairy farming, although a number of specialist arable and horticultural producers have also entered the sector in recent years. In total 48% of organically certified land in Cornwall is under permanent pasture with 21% under grass leys, 13% used for arable production and 2% for organic horticulture. As is often so characteristic of

organic production, this group of farms have established a considerable stake in direct marketing, with 14 organic box schemes operating in Cornwall and 47 producers selling through farm shops, farm gate sales and farmers' markets. Sixteen producers use mail order, 6 run tea rooms and 8 have B&B facilities.

Organic producers in Cornwall benefit from a unique degree of technical and market support through Organic South West, a regional initiative to support organic production and The Organic Studies Centre at Duchy College, which takes part in research at a national and international level. No other county in England has this level of research and technical support.

The baseline survey of organic farming in Cornwall undertaken by the Organic Studies Centre in 2002 remains a resource that is nationally important as well as presenting the sector with a vital source for those working in the county. This survey provides information about farm operations as well as business configuration and activities. The survey reports that only 7 farms were organic before 1998 and that most organic farms in the county had completed conversion in the year before the survey was undertaken, emphasising the rapid growth and short history of the organic sector. Technical detail in the report is sector specific but it records that many organic producers were worried about the market for their produce, with only 60% of dairy farms selling all of their milk as organic at that time, 67% of lamb producers sold all of their animals as organic, whilst pig and poultry producers did not face such problems. At that time only 72% of organic producers were within the Organic Farming Scheme. Sixty-one per cent of organic farmers enjoyed farming more since converting to organic and 5% enjoyed it less. In its detail and combination of agronomic and economic information the baseline survey remains a vital resource that deserves to be repeated.

Within the rapidly growing organic market there appear to be considerable opportunities for certain sectors. For example, in 2005 only 25% of Broccoli sold through multiples was sourced in the UK while the equivalent figure for Cauliflowers was just over 60%, with Cabbages at a similar level and less than 50% of organic Peas and Beans sourced from the UK. This would suggest that there is further opportunity for the expansion of organic field scale vegetables for domestic supply through the multiple retailers. There is also evidence of strong local demand for organic fruit and vegetables from Cornish restaurants. For instance, Butterville Funky Leaves supply organic salad leaves, fruit and vegetables packed and delivered on the same day to a number of restaurants including Fifteen Cornwall.

The south west region has benefited from the increasing popularity of organic foods and the developing market. Polling by YouGov for Sainsbury's has indicated that "The South West has overtaken London as the organic capital of the UK. Loyal to provincial farmers, almost half of people in the South West (49%) intend to buy organic food in the next month, compared to 38% in London" (Sainsbury's press release).

A report conducted by ADAS for Organic South West provides the most detailed estimates of the market for organic produce in the Cornwall to date.

The interview-based survey spoke to over 200 retail and hospitality businesses in Cornwall and undertook 19 longer interviews with businesses in the organic sector. The key findings are as follows:

- A quarter of those participating in the survey did not buy organic food but wanted to, subject to finding an adequate supply in terms of quantity, quality and variety.
- The hospitality sector represented a bigger potential market as it was more frequently interested in either starting to buy or buying more organic produce.
- The peak periods of demand are during the summer season and a smaller peak during the Christmas period.
- Specific areas of demand are:
 - Dairy produce – especially cheese and yoghurt.
 - Vegetables and salad crops, in particular.
 - Poultry – both table birds and eggs.
- The products most in demand were organic cheese, beef and salad crops.
- Most participants in the research indicated that price was not the central factor but quality, and they were prepared to pay for the quality that they required. The research indicated that purchasers were prepared to pay a premium over non-organic produce of 20-30%.
- Those who were presently sourcing organic produce were either very or quite satisfied with the produce they had been buying.
- Many businesses were buying local as opposed to organic.
- The main source of organic produce was either direct from the farm or from a wholesaler.

7.3 Trends and developments

In 2003 there were 8,778 hectares of organic land in Cornwall, since that time there has been a growth of over 20% in the amount of organic land in the county. Similarly, while in 2003 there were 130 organic producers in Cornwall there are presently 162, a rise of approximately 25%. In the past 12 months 18 producers have started to convert to organic production, while in the same period 4 have reverted to non-organic production.

No single factor can account for the current wave of conversion although an important driver (alongside strong market growth) is the Organic Entry Level Stewardship scheme (OELS), part of the suite of new stewardship schemes now operated by Natural England. Cornish farmers have been particularly enthusiastic adopters of the scheme which replaces the earlier Organic Farming Scheme which was also seen to play an important role in facilitating the expansion of the Cornish organic sector. Finally, an increasing appreciation of the costs of inputs (particularly oil based inputs) to conventional farming is a contributory factor in stimulating the switch to organic production. This has a benefit for the county in terms of the impact on farmland biodiversity and resource management, with wider indirect benefits for tourism and other sectors with a close link to the Cornish environment.

Other initiatives have been more 'bottom up' such as the development of Cornwall Organic Partnership (COP, initiated by Carley's). This grouping of over 12 Cornish Soil Association registered producers aims to promote and publicise Cornish organic produce and to make it easier for the public to identify local organic food through the development and use of the COP logo. At the same time, the expansion of box schemes, farmers' markets and mail order have all given producers increased direct access to customers and their success can act as a stimulus to further organic conversion. The growing number of high quality restaurants in Cornwall also offer the opportunity for direct supply by organic producers. Cornwall currently has a number of establishments with 1 Michelin Star, while web-sites such as Cornish Accredited Restaurants (www.cornishaccreditedrestaurants.co.uk/) promote "fine Cornish cuisine restaurants". Finally, public procurement initiatives such as the Royal Cornwall NHS organic farm shop (recently opened as part of the Cornish Food Programme) are associated with an expanding market for locally produced organic food. In the case of the hospital farm shop, as well as making purchases from the shop, customers have also signed up to box delivery schemes.

The five organic businesses interviewed for this project varied greatly in size from a turnover of £150,000 to in excess of £1m. These businesses ranged from 'traditional' family farms producing organic beef and sheep through to business producing processed food, some of which was highly specialist (e.g. spreads, purees, etc) and which was divorced from primary production (i.e. we surveyed a mixture of producers, producer-processors and processors²⁶). Many of the comments received from the business operators reflect what has been said above concerning the growth of the local organic market. All reported sales growth in the last three years and in some cases turnover had increased by as much as 50% (only 1 producer referred to "small" growth).

Generally, the businesses had a strong local orientation when it came to sales, with three interviewees reporting that between 60-100% of their sales were made locally. In common with many of the businesses following an expansionist trajectory, specialist producers and processors were 'forced' to seek regional and/or national sales due to the limited size of the Cornish market. One producer reported that despite having an on-site shop, it was "low key" and accounted for only 3% of sales. In contrast, 97% of sales were through Riverford. The explanation for this pattern of sales was partly due to increasing competition for local direct sales and partly because Riverford had an already established infrastructure that the producer could easily use.

A number of the businesses interviewed had benefited from grant aid and support through Taste of the West and Objective One. This had helped develop capacity, new products and, in turn, was associated with an increase in sales. Looking to the future, all but one planned for further growth with one business aiming for 15% growth per year and another intending to "triple production". Changes in agricultural policy seemed to be having little impact on these businesses who were largely responding to market opportunities

²⁶ Further information on processed organic foods can be found in Section 8.

(which, arguably, was the intention of the 2003 CAP reforms). That said, it was thought that the new Organic Entry Level Stewardship scheme “may help”.

7.4 Critical issues

It could be argued that in comparison to other counties in the region Cornwall has fallen behind in terms of infrastructure for organic processing and distribution. For instance, as well as using Riverford, some businesses sent livestock to abattoirs in Devon and used Devon-based processing and packaging facilities. The extent to which initiatives under the Cornwall Food programme and the COP can begin to replicate some of the benefits associated with the producer co-operative and marketing infrastructure of Riverford, the producer/processor alliances around Lloyd Maunder, or the role of processing plants such as Yeo Valley remains to be seen.

As with other sectors, the interviews revealed a tension between wanting to supply the local market and needing a market of sufficient size to sustain a range of growing businesses. One answer could be the creation of independent brands of either processed goods or produce that, as well as organic status, has a close association with either a locality or another distinctive quality. Geographic designations can appeal to both the national and local markets, playing to the strong sense of Cornish identity within the county but also to the positive attributes of the area out of the locality. In terms of non-geographic qualities that could be adopted market research shows clearly that organic consumers and especially regular organic consumers see fair trade as part of the value set around organic goods. Consumer surveys show that 80% of all shoppers and 90% of organic shoppers agreed that it was “in keeping with organic values for farmers to be paid a fair price and for farm workers to be fairly treated and reasonably paid”. Either as individual brands or more effectively as groups, Cornish producers could gain market advantage by moving to the new organic standards that incorporate fair trade standards.

The second advantage that organic farmers in Cornwall have is access to an unrivalled level of technical and market support. For one county to host The Organic Studies Centre and Organic South West means that the Cornwall has an advantage over other areas that it needs to retain and exploit. The challenge is to be able to make best use of these facilities and to sustain them rather than any dramatic departures from current practice. Organic agriculture is one of the most knowledge intensive areas of all of the agricultural industry. It is therefore essential that when developments in the county are underpinned by research and information from these services this is clearly flagged.

Despite the apparent vibrancy of the market for organic produce there are still some significant gaps in supply. The government, through the organic action plan, is committed to attempting to supply as much organic produce as possible from indigenous sources. Given the gaps in the supply of field-scale

vegetables through the national multiples there would appear to be an opportunity for those suitably organised and prepared. Similarly at a local level there would appear to be an opportunity to supply salad products within the county for those prepared to match this demand in terms of quantity and quality of supply.

8 Processed food production

8.1 Background

As was the case with the original report, information about the processed food sector is less easily available than that for businesses involved in the production and processing of primary food products. Government support for primary production has ensured that considerable amounts of data are collected on a regular basis. The processed food sector by comparison is dominated by private companies sensitive to the implications of disclosing commercially important information. A full and thorough investigation of the processed food sector in Cornwall would require considerable resources and time. That said, we have successfully undertaken a number of interviews across a range of businesses operating in this sector. Some are repeat interviews and others are with new businesses. This is a largely 'young', dynamic and growing sub-sector of the agri-food industry. Indeed, excluding a couple of long established businesses (dating back to the 1950s and 1960s), the average age of the businesses interviewed is approximately 9 years, although half have only been in operation for 6 years or less²⁷. Some of the businesses included in this section are involved in primary production but, in contrast to many of the businesses included in the rest of the report, for the most part the processed food businesses are not directly connected to the production of raw food products (other than through a supplier-processor relationship).

8.2 Beverages

The diversity of the beverages sector defies ready description as a full range of products and business styles are evident, from the micro-brewery based on local products and selling only to the immediate locality, to drink producers who sell more abroad than in the county. Cornwall hosts producers of alcoholic beverages, various types of fruit juice and fruit based drinks, spring water and, famously, English tea.

8.3 Wine (& fruit wines)

There are a number of small vineyards and wine producers in Cornwall. The county's major and most prominent producer has a national and international reputation although the bulk of the business (some 80% of sales) is focused on Cornwall. Of these local sales approximately half is sold directly to visitors at the vineyard²⁸ while the rest is supplied directly to restaurants, hotels, wine shops, etc. The business is in the "fortunate position" of being able to sell the bulk of its output locally and therefore does not see the need to increase food miles by selling large quantities further a field. That said, the mail order element of the business is growing rapidly. The growing number of vineyards

²⁷ The 'youngest' business in the interviews had been in operation for just 3 months at the time of interview.

²⁸ These sales are 'local' in the sense that they take place at the site of production. Many of the visitors however, are likely to come from outside of Cornwall so a proportion of these sales represent export income.

is an indication of the increasing importance of the English wine sector. Support for improved processing facilities would further assist the development of Cornish wine production.

8.4 Cider and beer

Cornwall is perhaps not the most obvious choice for cider production given the strong winds off the sea that can inhibit good crop formation. Indeed, much cider produced in Cornwall comes from apples brought in from outside the county although there has been a resurgence of interest in Cornish apple varieties and Cornish orchards. The Cornish Orchard Project funded by the County Council in the 1990s stimulated a renaissance in apple production in the county and there is still further potential to restore old orchards to increase production and meet the growing demand for Cornish grown apples. The largest cider company in the county, the Cornwall Scrumpy Company, presses 60,000 gallons of apple juice a year, most of which goes for cider production with small amounts used for wine, brandy and apple juice.

The Cornish beer sector is an example of a growing and dynamic part of the Cornish food economy associated with strong and popular brands. Cornish beer is frequently not just Cornish in name but is also increasing its use of local ingredients. For instance, Skinners have 550 tons of barley grown for them by FG Pryor and Son (near Truro). They have also recently signed deals with two more local farms. All of the barley goes to Tuckers in Newton Abbot for malting. The business has grown rapidly since 1997 winning regional and national awards for its beers. More recent and on a much smaller scale, Atlantic Brewery produces hand brewed organic beers. The business now grows its own (Soil Association certified) organic hops and uses its own supply of fresh spring water.

8.5 Juices, presses, water and tea

Non-alcoholic soft drinks such as fruit juices and presses represent a small but dynamic area of the Cornish food economy, with several smaller businesses servicing a diverse range of local, national and international markets. One producer (who makes a range of soft drinks as well a cider) reported a 37% increase in sales over the previous 12 months and the potential to double sales if he undertook the necessary investment. The fruit base of these drinks is largely prepared from imports although there is significant potential for new product ranges from indigenous fruits.

The original report stated that “spring water represents one of the most local of all products. As yet this market is underdeveloped for local products and represents an opportunity for growth”. Since then this sector has benefited from some £250,000 of Objective One funding and investment in productive capacity and new product ranges has been initiated to meet local and national demand. A small number of established businesses now meet the demands of this sector for bottled water and office water coolers.

Perhaps the most well publicised beverage to emerge from Cornwall in recent years is Tregothnan tea. The Tregothnan Estate has been in existence since approximately 1300 although the tea enterprise is much more recent

(established 7 years ago). Tea grown on the estate is blended with imports but approximately 80% of the Black Assam is home grown. Where possible equipment is purchased locally but, as with many of the businesses contacted for this research, specialist equipment is sourced from elsewhere in the UK or overseas. The business faces some unique challenges in that although harvesting and processing can be supported by a staff team from another Estate business, manufacturing is a highly specialised process and there is a skills barrier.

8.6 Disposition to local sourcing

Most producers had a very positive attitude toward local sourcing and in many cases the primary product is either produced or sourced within the county. That said, many primary and secondary ingredients are unavailable locally or unavailable in sufficient quantities. For instance, there is a clear shortage of fruit in sufficient quantities in order to supply the cider and fruit juice sector. Typically, specialist equipment and packaging (e.g. bottles) are not available locally, resulting in a heavy use of regional suppliers for packaging and international sourcing of equipment. Even where these products can be purchased locally, respondents were careful to point out that they were not produced locally.

8.7 Routes to market

The business interviewed are characterised by a diversity of approaches to marketing, focusing on local, national and international sales. Sales in the cider sector tend to be more local (or at least the sales take place locally) with one interviewee estimating that 85% of sales (by value) took place within Cornwall. Other businesses need national and even international sales to either sustain the business at its current scale or support plans for growth. For these businesses the 'Cornishness' of their products is important in attracting sales further a field. Businesses frequently use their own transport to deliver direct supplies to local delis, farm shops, restaurants, hotels and retailers, while also using mail order and wholesale distributors.

8.8 Confectionery²⁹ (including ice cream)

The 5 confectionery producing businesses interviewed for this research had a collective turnover in excess of £2.4m and represent a range of small, medium and large companies (in terms of turnover and employment). Together these businesses employ approximately 70 FTES. The degree of local sourcing varies according to the products being produced with some interviewees reporting over 75% local sourcing while others acquire large proportions of their inputs from non-local sources. There is generally a strong Cornish 'brand' although this is not necessarily linked to the Cornish provenance of inputs. For instance, one business that makes considerable use of Cornish

²⁹ Businesses have been categorised as confectionery, bakery products, preserves and miscellaneous for analytical purposes. In reality, some of the businesses interviewed were active in more than one sector.

imagery in its marketing sources only 3-4% of inputs locally. Typically machinery and equipment are not locally sourced as it is simply not available and sometimes has to be imported from countries such as Italy and Germany. All interviewees said they would source more locally if possible and were looking for local supplies of organic double cream, other organic ingredients, flour and fats and sweetened condensed milk. The availability of local labour does not appear to be a particular problem although one interviewee had to provide specialist in-house training as “skilled labour [is] not available in Cornwall”.

All the businesses interviewed had a strong focus on Cornish sales with between 60 and 99% of sales taking place locally. Out of county sales include national wholesalers and, for one business, a contract to supply Fresh and Wild in London. Distribution methods included “through the front door”, mail order, own delivery to retailers and web agents. As with some other sectors, technical issues with websites were putting a brake on developing internet sales in some instances. “Word of mouth” and trade shows appear to be particularly useful in generation sales and while some also advertised in the local press, one interviewee reported that “people don’t look at standard newspaper ads”. As a result, this individual has successfully sought publicity through feature articles and national and local TV exposure.

All of the businesses had experienced considerable growth in the last few years. One had invested in a major new production site that had seen production triple, another reported a “25% increase in production, sales and customer base” over the last 3 years and another had seen their turnover increase by 35% since 2001. All but one of the businesses had received support from Objective One and or Taste of the West. Business Link was also reported to be a useful source of on-going assistance. The business that had not benefited from grant aid was, perhaps predictably, not impressed with what was on offer. In particular, the rule stipulating that 40% of ingredients must be sourced locally was seen as a major impediment for confectioners who simply “could not” source locally to that extent.

It is not possible to say to what extent the business interviewed reflect the Cornish confectionary sector more generally but these businesses certainly plan for further development and expansion. At least one has already outgrown their existing building/site, while another simply reported that he was “looking for serious growth”, hopefully on the back of increased public awareness of “better food” generally and organic food in particular. Another interviewee had secured Business Link funding to extend capacity as part of the development of the wholesale side of the business. Others will be also investing in new productive capacity and developing new product lines. One interviewee, whose business is currently very much focused on Cornwall and the Padstow area in particular, had previously declined opportunities to expand into the south east market as “the company was not ready for that”. Now however, they are hoping to develop new markets outside of Cornwall and are confident about future prospects because “Cornwall is seen as the ‘in’ place to be”.

8.9 Bakery products

The four businesses in the survey producing baked goods (mostly pasties and pies) were advocates of local sourcing where possible. Much of the meat and vegetables for pies and pasties was locally sourced but flour and fats were largely unavailable locally. In the absence of a large scale mill³⁰, flour isn't produced locally and one interviewee said it was difficult to even find a local source. That said, we are aware that Ginsters have recently entered into a contract with Kernow Grain for the supply of Cornish milling wheat which will be processed by Allied Mills into Cornish flour. A shortage of local skirt beef was also identified as a barrier to more local sourcing. Machinery and equipment was sourced locally where possible but not manufactured locally.

Sales and distribution patterns varied considerably. One business which supplies "authentic food from artisan Cornish producers" only conducted 5% of their sales within Cornwall because "Cornish people can source their own Cornish products". Other businesses sold much larger volumes locally although some of this was to wholesalers. The larger businesses use their own delivery vehicles as well as distributors such as *Plough to Plate* and *3663 First for Foodservice*. The smaller businesses made greater use of courier services and had found that their margins were too small if they used one of the established distributors.

Word of mouth, PR and trade shows were all cited as important means of generating additional sales and all of the business had seen significant growth in recent years. Typically over the same time these businesses had also increased their range of products and invested heavily in the future of their business. In recent years these businesses had benefited from grants under Objective 5b and Objective One, South West Food and Drink and Taste of the West. One operator of a relatively new business reported that Objective One funding had facilitated developments but was "not essential". Taste of the West, it was claimed, had had more of an affect through "its research and the support of the organisation itself". In contrast, another interviewee thought that "Taste of the West haven't done much this year" but had been more useful in the past.

The near future is likely to see further developments in this sector as these businesses are still growing. As well as increasing sales of existing products the future will see the development of new product lines, improvements to packaging and the combining of mail-order and retail premises. The operators of these businesses were largely very positive about what they were doing, with one reporting that there is "good support for local food in Cornwall", while another remarked that through business growth she wanted to "further contribute to local food".

³⁰ Cornwall's first commercial flour mill at Trescowthick Farm grows its own milling wheat and produces flour for cakes, bread and biscuits. The mill aims to develop a range of Cornish grain-based flours that can be sold direct to bakers, other food businesses and retail consumers. As well as growing their own wheat, the mill pays a premium to neighbouring farmers who supply them with wheat.

8.10 Preserves & Miscellaneous

The preserves and miscellaneous sector includes a range of companies producing preserves, desserts, packaged dried fruit, herbs & spices and Cornish sea salt. The 4 businesses interviewed currently employ 35 FTEs and have a collective turnover well in excess of £2.4m, which is all the more impressive given that one business will not be in production until 2007. All are interested in local sourcing but some have limited current use of Cornish inputs, mainly due to unavailability or large volumes required. For instance, a producer specialising in organic spreads, purees, pickles and chutneys, etc is only able to source approximately 5% of inputs locally. They regularly use 12-15 tonnes of pumpkin seeds in a year which have to be imported from Austria, Hungary and China as they are not available from the UK. Others reported being able to source 75%-100% of inputs locally (the ability to source locally varies greatly according to product). Machinery and equipment was sourced locally where possible although one respondent found that the minimum order size imposed by some suppliers was a barrier to local sourcing. It was suggested that organisations such as Taste of the West could do more to facilitate local sourcing (although quite what this could/should involve was not specified).

The pattern of distribution and sales varied considerably with use of own delivery vehicles for local sales, mail order and local and national wholesalers. Sales within the county range from 5% to 95% although again, as a portion of these sales are to wholesalers, it is likely that a certain amount of produce leaves the county. It is also likely that the proportion of sales within Cornwall will decline for some businesses that are embarking on growth and development.

These businesses had all experienced rapid growth in the last 3 years. Some had benefited from the support of Taste of the West and Objective One while others, such as the operator of a business that had seen 40% growth in the last 3 years, reported that they had not had any grants or external support and that growth was “done through hard work”. Others had grown more slowly and steadily to combine business objectives with family needs. The future will see further growth but again at least one interviewee intended to put a ceiling on the growth of the business both for business and lifestyle reasons. Although this business operator does intend expanding into the London market the intention is to be “a local brand based in Cornwall - something people associate with the county”.

Other examples of the development of this sector include the Nude Food Company, producing high quality meals using local seasonal ingredients without additives, colouring or preservatives. Nude Food products are supplied direct to customers in Cornwall and are sold through a small number of Cornish retailers. On a different scale, Kensey Foods have received funding to extend their operation and create desserts using local ingredients where possible.

8.11 Trends, developments and critical issues in the processed food sector

As this section has demonstrated, the processed food sector is a vibrant and growing part of the Cornish food economy and it often involves business people who want to promote the Cornishness of their products and help support the local economy where feasible. Several interviewees mentioned the importance of, and support for, local food in Cornwall. One stated that “local, local, local” was an important food fashion and another felt that in both political and economic terms, local food was increasing important. The reasons behind the growing emphasis on local food are many and varied although in the Cornish context one interviewee stated that: “Objective One has encouraged outlets to source Cornish” and that the resulting increase in demand has been the “biggest effect of Objective One money”. The same interviewee reported that sales had doubled each year since 2000 which had also resulted in taking on more staff

The growth in this sector has been associated with the development of new products and production facilities and an associated and necessary expansion into regional and national distribution. The producers of premium products, in particular, are frequently ‘forced’ to look outside of Cornwall for sales as the local population simply cannot sustain some of the prestigious and specialist commodities that are now produced in Cornwall. Nevertheless, these producers frequently still trade heavily on the Cornishness of their merchandise.

Alongside growth and successes, a number of challenging issues were raised during the interviews. For instance, although labour was not generally perceived to be a problem there was some indication that highly skilled labour was in short supply in several specialist areas. In addition, as with almost all sectors, the interviews revealed that local packing and equipment supplies were very difficult (if not impossible) to source. One producer had received grant aid to develop their own packaging but most had to purchase packaging from outside of the county (with some of the most specialist, high end packaging being imported from other EU countries). One interviewee speculated whether a local source of high quality recycled glass containers may help meet certain needs. Others could not source inputs of sufficient quantity locally or sometimes could find no local source at all. A number identified a need for local flour, a requirement that could be met in due course if a proposal for a large commercial mill is developed. Finally, the cost of a Cornish location was mentioned several times. These issues along with others raised in earlier sections are considered in the final section of this report.

9 *The Cornish food economy: trends and prospects*

9.1 Introduction

A recent article in the Sunday Times³¹ began: “When I was a child, Cornish food meant tinned crab-paste sandwiches and Wall’s sausages lightly sprinkled with sand. The only delicacy was lardy cake. ... Fast-forward a generation, and things couldn’t be more different.” As this report has demonstrated, the new Cornish food economy is complex and, in many ways, appears to be thriving. Whitehead and Baker (2006) describe the primary food production sector in Cornwall as “refreshingly buoyant”, while books such as Carol Trewin’s *Gourmet Cornwall* and her more recent *Cornish Fishing and Seafood* can play an importing role in reflecting, developing and promoting Cornish food culture. This final section attempts to draw together some of the trends that have been noted from previous sections, both in terms of recent trends and future developments. Finally, it attempts to describe and partially quantify some key Cornish food chains.

9.2 Cornish food businesses

Although this report makes extensive use of the phrase ‘Cornish Food Economy’, it should be clear by now that this is simply a form of shorthand for labelling a complex, diverse and often interconnected series of food related businesses. Among this mixture of businesses of different sizes, serving different markets and with differing links to primary producers it is possible to identify a number of different types such as the ‘*Cornish food for Cornish people*’ businesses. These businesses are often small (through choice) and have chosen to market their outputs as directly as possible to the residents of Cornwall through direct sales and deliveries to local retailers, restaurants, hotels, etc. Typically, 90% or more of their sales take place within the county and the business operators can exhibit quite strong motivations to support the local economy. For these businesses, it is often the *localness* of their products that is as important (or more so) as the *Cornishness*. Alongside these businesses are those ‘forced’ to look outside of the county for sales in order to aid growth or simply sustain income levels. These businesses frequently trade heavily on their *Cornishness* and supply the markets of (initially) Devon and (then) the wider region. In most cases these out of county sales are because there simply is not a sufficient market among the residents of Cornwall but in some cases it is also linked with dissatisfaction with how certain sections of that market operates (for example, criticism of some farmers markets).

For businesses seeking to grow still larger, or those supplying highly specialised markets, there is no option but to engage with the national and international economy. Some of these businesses have very low sales within Cornwall while others appear to operate a ‘mixed economy’ of local and national sales. The *Cornishness* of these products is particularly important in marketing terms (sometimes allied with other characteristics such as organic

³¹ Autumn on Cornwall’s gourmet coast. The Sunday Times, September 24, 2006.

certification) although at this point issues of Cornish provenance begin to become blurred in some cases. While many of those businesses use a large amount of Cornish inputs, others through choice or because of the nature of the products they produce utilise less local inputs but nevertheless draw heavily on Cornish imagery in advertising and promotion. Finally, it is possible to recognise a group of '*bulk commodity producers*' for whom (perhaps with the exception of fishing businesses) the Cornishness of their produce is often incidental. The size of these individual producers and suppliers varies but the key issue (in the context of this report) is that they almost exclusively supply the national market, although in a number of instances their produce will actually return to Cornwall via national supply chains. For the largest businesses in these two groups with a predominately national focus, their sheer size can make a significant contribution to the Cornish economy through employment generation and local sourcing.

In sketching this loose typology of Cornish food businesses, the purpose is not to imply any value judgements associated with local, regional and national sales strategies but rather to suggest that the current success of the Cornish food economy derives at least in part from the great diversity of businesses involved in the sector. In addition, while all of these businesses contribute to varying extents and in different ways to the well-being of the county, they are also likely to have different support needs and respond in different ways to policy initiatives and incentives and this should be recognised by all those involved in supporting the Cornish food economy, both at a strategic and also day-to-day level.

9.3 Trends and developments (see Table 9.1 for summary by sector)

As the previous sections of this report have demonstrated, the last three years have frequently been a period of considerable growth for the businesses surveyed for this report. This growth has typically been achieved through increased sales of existing and newly developed product lines and has frequently been supported directly through Objective One funding and/or through one or more of the sector support organisations in the county. The hospitality sector appears to have played an important role in providing a market for food businesses, with many of the businesses interviewed now involved in the direct supply of food products to hotels, restaurants and caterers.

In contrast to our original report, relatively few businesses described problems with gaining or retaining labour. Those citing labour issues as a barrier to the growth and development of the business tended to require highly trained and specialised labour, such as in parts of the fish processing sector and the bakery and confectionary sector. The apparent easing of the labour issues identified in our previous report is assumed to be at least partly connected to the use of migrant labour from eastern Europe. A report by Kerrier District Council (as part of a proposal to modify planning policy to allow the siting of caravans on farms to provide accommodation for migrant workers) states that at peak times there may be up to 25,000 migrant workers in Cornwall of which 37% are involved in agriculture and a further 8% in food processing. 51% of

the migrant workers are thought to be Polish and 28% Lithuanian³². A further indicator of the growing importance of migrant workers in the county is the 'Welcome to Cornwall' information pack for migrant workers published in English, Polish, Portuguese and Russian³³. The implications for agriculture and the food sector of the important and diverse population of migrant workers deserves further investigation.

Not surprisingly, the physical remoteness of a Cornish location remains an issue frequently cited either as a barrier to business growth or an additional cost. One major manufacturer estimated that their Cornish location cost them the equivalent of 2-3% of their turnover in additional transportation costs to the rest of England and Wales. In this case that amounts to between £3-400,000. Others also pointed to the additional costs (and therefore reduced margins) of out of county transportation while several interviewees had high hopes for the results of major road improvements in the county. Clearly, with the recent development of what might be termed more 'non-conventional' retail methods, the roads of Cornwall are experiencing an increasing number of delivery vans and couriers which themselves add further to problems of congestion. Given the frequency with which transport issues were raised during this research it may be timely to consider the development of a central distribution hub for (particularly the smaller) Cornish producers. Another brake on business growth, which should not be underestimated, is the existence of a large number of self-limiting businesses whose operators are keenly aware of the fine balance between business-size, family and work life, and who have chosen to limit the growth and development of their business.

In addition to the supply of labour noted above, the research for this report also explored local sourcing of raw materials and other inputs, as well as machinery, equipment and packaging. A number of current and future issues emerge from this analysis. The use of Cornish inputs (raw materials and ingredients) varies enormously according to business type and size. Some businesses use 100% or as near as possible of Cornish *produced* inputs, while others strive for 100% of a mix of Cornish *produced* and Cornish *purchased* inputs. In both cases businesses frequently reported wishing to contribute to the local economy through their purchasing decisions. Others are forced to source elsewhere. In some instances this is due to a lack of local supply (e.g. fats and flour for baked goods and pasties), or in other cases it is because of a lack of a sufficient volume of locally available inputs, for example, apples for cider and juice and fruit for ice cream making. While these latter examples appear to have changed little since our 2003 report, there was certainly a great deal of awareness surrounding issues of local sourcing. In part this is a reflection of the rise nationally of 'local food' but it is also a strong reflection of the development of a Cornish food culture and, inseparable from this, the role of Objective One.

In this context Objective One might be seen as having given Cornwall a 'quick win' in terms of facilitating the development of food businesses that are now

³² [Click here for further information.](#)

³³ [Click here to download the Welcome to Cornwall information pack for migrant workers.](#)

intimately linked into local supply chains. The requirement for the receipt of Objective One funding to create a benefit to primary food production has clearly had an effect on local sourcing that might be expected to last well beyond the current funding programme. On the other hand, the county faces a potential challenge if the food sector continues to grow and develop. As we have seen, there are already absolute and relative gaps in local supply (there are also issues of the *quality* of supply in some cases e.g. beef from the county's dairy herd) but as businesses continue to grow there is a question-mark over the ability to maintain high quantities of Cornish inputs. This suggests the need for local producers to increase production where possible but also to be willing and able to adapt to the demands of local food businesses.

Moving beyond the supply of raw material and ingredients, the story around the sourcing of machinery and equipment was remarkably consistent. In most cases specialist equipment is not manufactured in Cornwall (and is frequently not even manufactured in England). Nevertheless, many businesses taking part in this research noted that they try to purchase locally and a few mentioned that they use local servicing facilities. The future of regional and national manufacturing industry is very much beyond the scope of this report although it does seem that there may be further scope for locally based service businesses. The other area of local sourcing and supply where many businesses operators were openly frustrated was that of packaging. Given the very wide range of businesses surveyed, packaging could mean anything from cling film, to various types of cardboard through to Spanish glassware. Again, this is an issue beyond the remit of the current report but it is deserving of further investigation.

A final, but important, point to be made about local supply is that thanks to the development of new and novel businesses (such as Cornish Sea salt, Cornish Duck Co and Deli Farm Charcuterie), local supply gaps are being filled. The producers and manufacturers of some of these products differ from many of the interviewees for this project in that they are less likely to originate from Cornwall (or if they do, they are returners) and frequently bring with them a range of very relevant skills gained from outside the sector. They are also often very highly motivated proponents of the local food culture. As with the Cornish food economy more generally, it is this mixture of the old and the new, long established family businesses and new start-ups by new entrants to the sector, and new entrants to the county, that is a symbol of the vibrancy of Cornish food culture.

It was explicitly **not** an objective of this research to make detailed recommendations for policy actions or indeed, additional research. However, there are two areas where this research has identified some important knowledge gaps. The first is the poultry sector, which remains relatively closed and for which Defra data is frequently unreliable. The second sector is the processed food sector. Although some individuals were extremely helpful, others were unwilling or unable to take part in this work. Moreover, the sheer size and diversity of the sector meant that a full overview was not possible within the resources for this project.

Looking to the future, a number of issues have already been touched on (such as the need for shared distribution and logistics services) but there are also a number of other areas requiring attention (including some of the concerns regarding the operation of the county's farmers markets). Marketing assistance will continue to be important, particularly for newly established and growing businesses. There was considerable support for food fairs and festivals as well as trade shows (it seemed to be a matter of business type and individual preference for which was the most successful). More generally, PR and word of mouth were more highly valued than advertising and there is a need to facilitate access to the media for some of the smaller and less experienced producers. The need for assistance breaking into the markets of London and the South East was mentioned several times.

One of the benefits of attending food fairs and festivals, and the local sourcing requirements of Objective One funding, is the networking that results between the businesses involved. Several interviewees mentioned the significance of these loose collections of businesses and suggested that there was a role for support organisations in facilitating the development of business networks. This can be linked to the bigger theme of business co-operation. Some pointed to the need for cooperation around out of county distribution (particularly for perishable products). Another suggestion was that some form of co-operation may benefit the purchasing practices of smaller businesses (who may otherwise face difficulties meeting minimum order requirements). In both instances it was thought that organisations such as Taste of the West and the Cornwall Agricultural Council could play a facilitating role.

Finally, while it was quite clear that capital assistance is always welcome, particularly in connection with business expansion, product development, etc, it was equally clear that the type of assistance needs identified by the businesses interviewed reflected a maturing food economy. The emphasis was less on the need to secure assistance with developing basic productive capacity and more to do with effectively exploiting that capacity through the development of new markets and cost-efficient delivery systems. One aspect that some businesses had found frustrating was the use of websites to promote their business and market their goods. There were some examples of quite poorly designed and poorly functioning sites and the associated negative experiences were leading some to question the value of internet sales. There is a need for some form of guidance and support in this area, if for nothing else than to help businesses avoid wasting funds on poorly functioning websites.

Table 9.1: Summary of recent trends, sales and sourcing and critical issues by sector

| Sector | Trends | Sales & sourcing | Critical issues |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dairy | Increasing milk supply & increasing use in value added products | Strong local sales of value added products. Out of county sales where local market too small. Commitment to local sourcing but some ingredients unavailable | Milk price. Development of out of county market for value added products. |
| Fish | Recent growth associated (in part) with Rick Stein and Tate St Ives boosting local winter sales. Tough local competition | Strong export orientation | Maintenance of wild fish stocks. Ability to develop (educate) local market and develop new product ranges. |
| Horticulture | Growth alongside intense local competition. | Mixed local sales and wholesaling. Less local sourcing for those processing 'exotic' fruits. Willingness to engage more fully with local economy | Need to develop new product lines/value added activities. Consolidate to cope with competition. Negative impact of Cornish roads. |
| Meat | Growth of local and regional direct supplies. Influence of public and private sector business procurement policies. | Mix of local, regional and national sales. Strong commitment to local sourcing. | Mixture of growth, consolidation and upgrading of facilities. Transport costs and 'gate keeping' of certain farmers markets. |
| Poultry & eggs | Very mixed. Egg production dominated by single national business but lots of smaller scale processors serving local market. | Strong local egg supply to national and local food chains. | Planning permission for free range facilities. Sector heavily influenced by fortunes of few businesses. Cornish road system as brake on exports of poultry meat for processing. |
| Organic | Significant & rapid expansion fuelled by local and national markets. Also important public policy and public sector influences. | Growth of direct sales and also national sales. Very strong commitment to local sourcing where feasible. | Tension between local focus and sufficient sales to grow business. Lack of processing and distribution facilities. Supply gaps e.g. field-scale vegetables & salad crops. |
| Beverages | Development of new products and product ranges. Growing national and international reputation | Positive attitude to local sourcing but in certain sectors many primary ingredients unavailable locally. Mix of local, national and international sales. Cornishness of product | Further growth possible in certain sectors (excluding spring water) but limited local supplies of inputs. |

| Sector | Trends | Sales & sourcing | Critical issues |
|------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| | | important here. | |
| Confectionary | Considerable recent expansion | In some instances few local inputs due to nature of products. Willingness to source more locally. Strong focus on in-county sales alongside sales to wholesalers and direct out of county sales. | Ability to source locally. Need to grow external markets for premium products. |
| Bakery products | Significant expansion of existing and new product lines. | Mostly advocates of local sourcing but certain inputs (e.g. flour and fats not available). Mix of local, regional and national sales. | Cost of Cornish location (in terms of transport costs and time) but mostly a positive outlook. |
| Preserves & Misc | Expanding sector with some novel businesses | Approach to local sourcing varies considerably according to product. Pattern of sales also varies. proportion of local sales will decline over time as premium product businesses grow. | Greater local sourcing possible if supplies develop. |

9.4 Cornish food chains³⁴

The final part of this report considers a number of key Cornish food chains. Building on the work in our original report, we have attempted to refine and add values to selected food production chains. For various reasons it has not been possible to fully quantify these value chains³⁵, however, the details that have been included help demonstrate the complexity of some of the chains as well as the differing character of those value chains predominately focused on national markets and multiple retailers compared to those with a greater local focus.

Figure 9.1 illustrates the Cornish beef supply chain, comparing conventional producers with organic producers. The retail values used for this figure relate only to the 12.7% high value cuts available from a beef carcass (see Figure 9.2). Focussing on high value cuts provides a dramatic illustration of the valued added associated with processing: in this example, the farmgate value of conventionally produced Cornish beef is estimated to be £37m while the retail value of just 12.7% of this production that consists of high value cuts is estimated to be £30m. Most producers sell either to an abattoir or market and whilst the volume of local sales is unknown, it is assumed that a greater proportion of organically produced beef is sold locally.

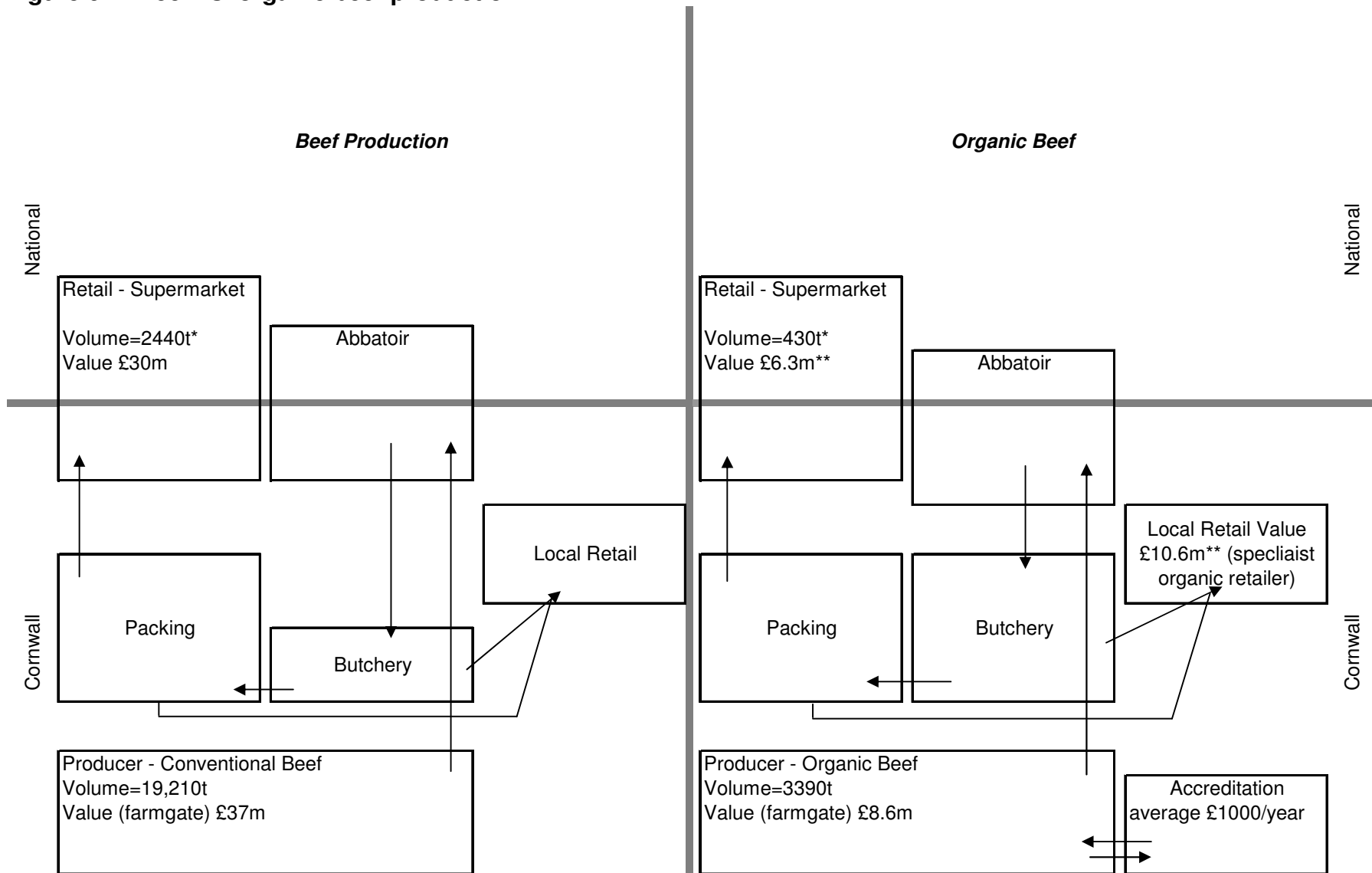
As earlier sections of this report have made clear, the dairy sector is the most significant sector of Cornish agricultural production and also one that has seen increased levels of production concentrated in the hands of fewer, larger scale producers. Much of the milk produced is used for cheese making and

³⁴ For other examples of supply chains mapped by CAC visit: www.cornwallac.org

³⁵ For example, many businesses did not wish to divulge the potentially commercially sensitive information needed to quantify the value chains.

other value added products which are largely supplied through national food chains although as Figure 9.3 indicates, in-county sales through local retailers and farm shops are also important. Given the importance of cheese production in the county, Figures 9.4 and 9.5 illustrate the value chains associated with two very different types of producer/processor. The cheese producer illustrated in Figure 9.4 can be characterised as a bulk producer, paying a premium milk price and supplying the national market. It should be noted that this is not a representation of an actual Cornish producer but is modelled on what is known about large volume cheese production in the county. Figure 9.5 follows the same format but this time models a medium sized on-farm cheese processor predominately using own farm produced milk (hence the lower price). Again, this is not an illustration of an actual producer but is a 'model' of an on-farm producer developed using market intelligence. It is noticeable that whilst the production volumes are much lower than in the previous example, the retail value of the cheese produced is much higher (per Kg), reflecting the premium nature of the product. In this example sales would take place through a combination of farm shop, local retailers and the national retail chain.

Figure 9.1: Beef vs. organic beef production



* Based on 12.7% premium cuts

** These figures cannot be summed but indicate the aggregate values depending on whether sales are made via supermarkets or specialist organic retailers. In the latter case, not all production will be sold locally but the proportions involved are unknown.

Figure 9.2: The value of different beef cuts

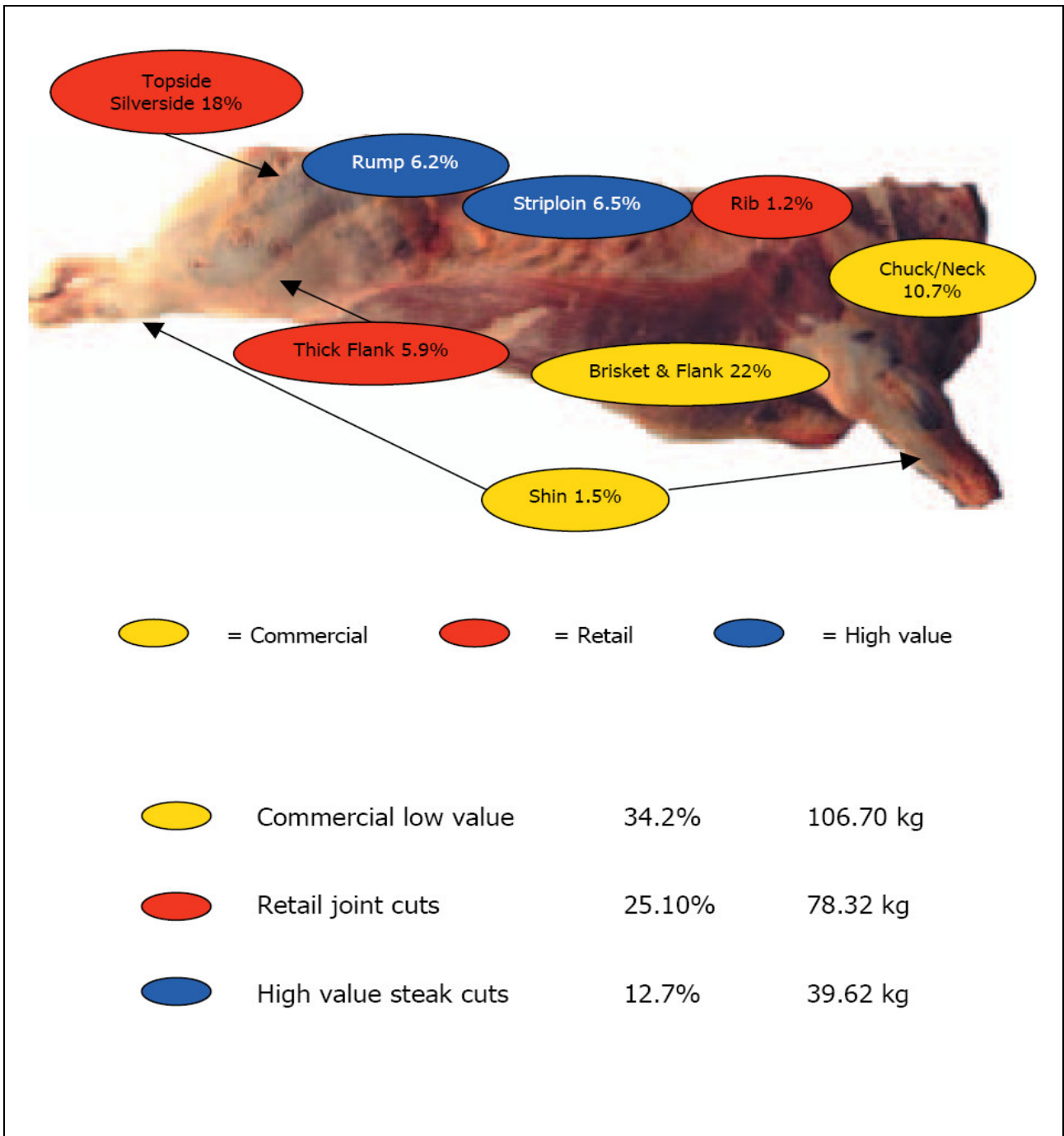


Figure 9.3: The Cornish dairy chain

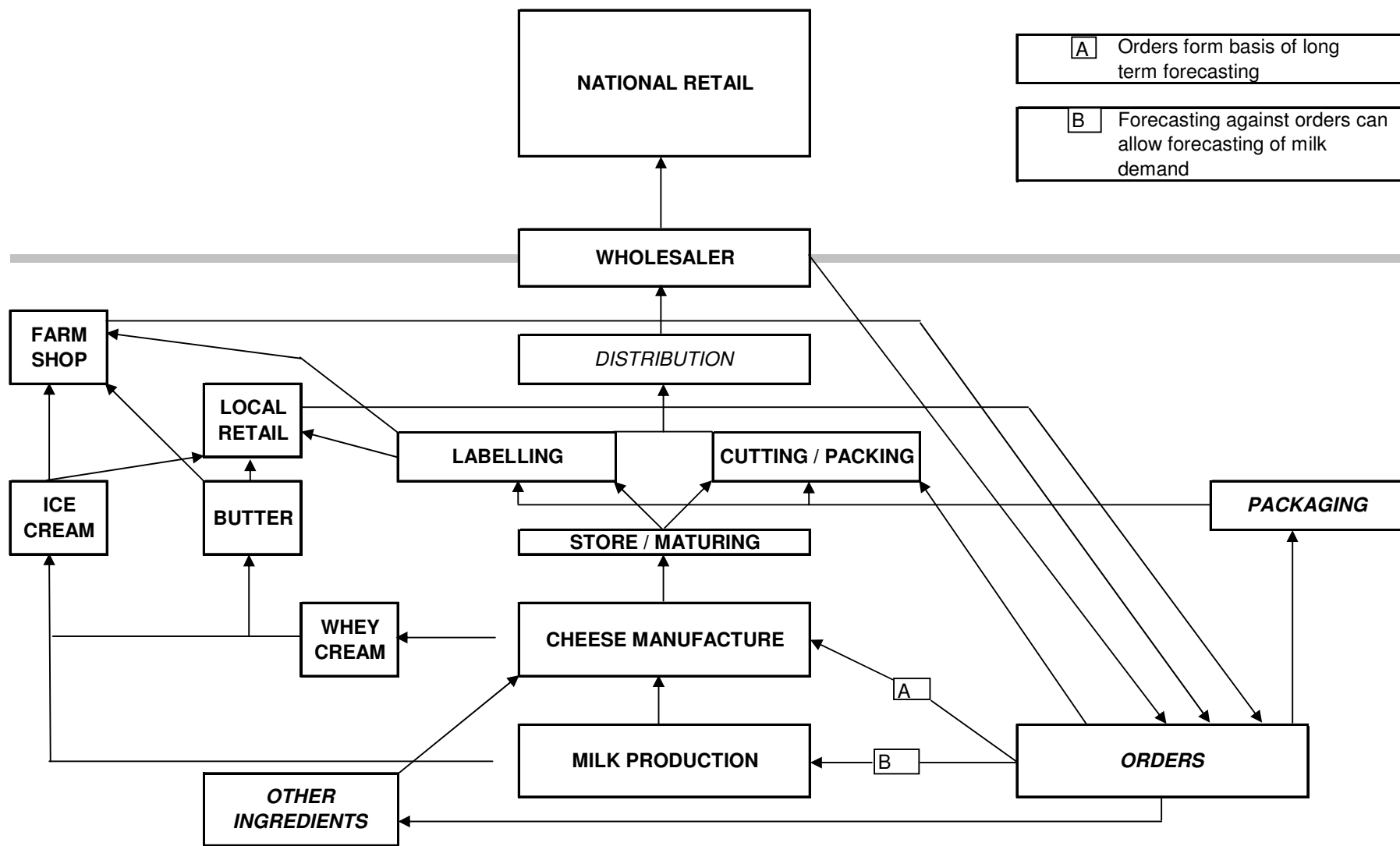
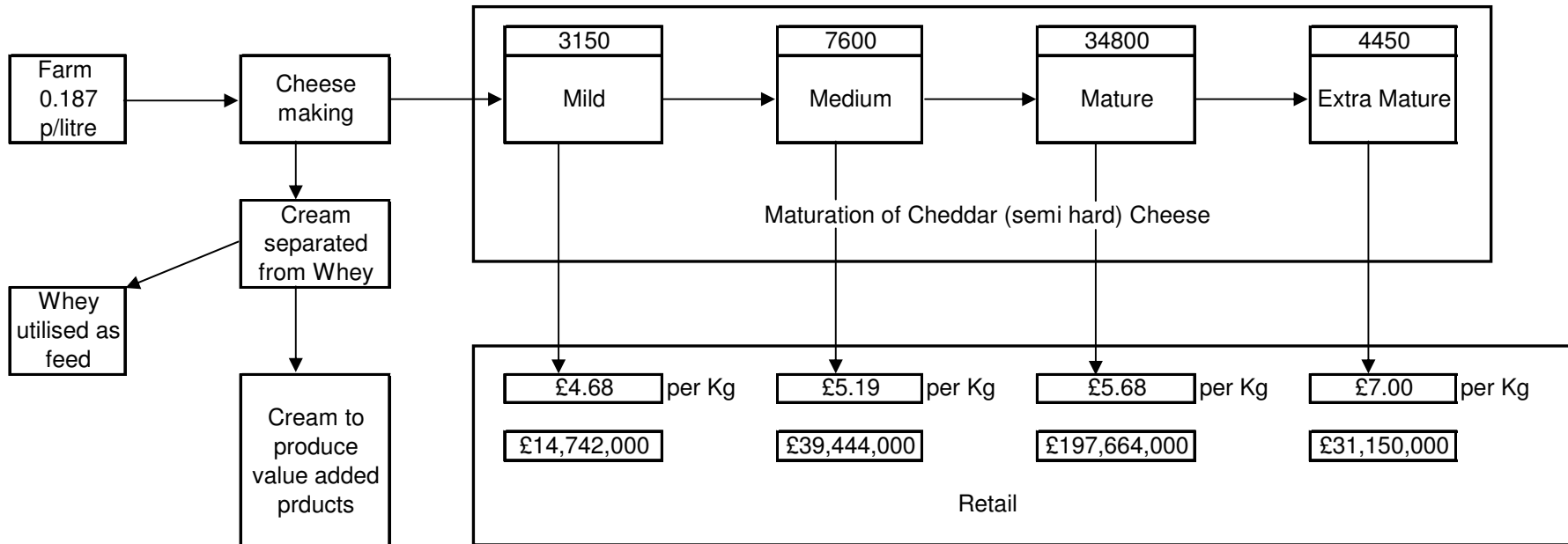
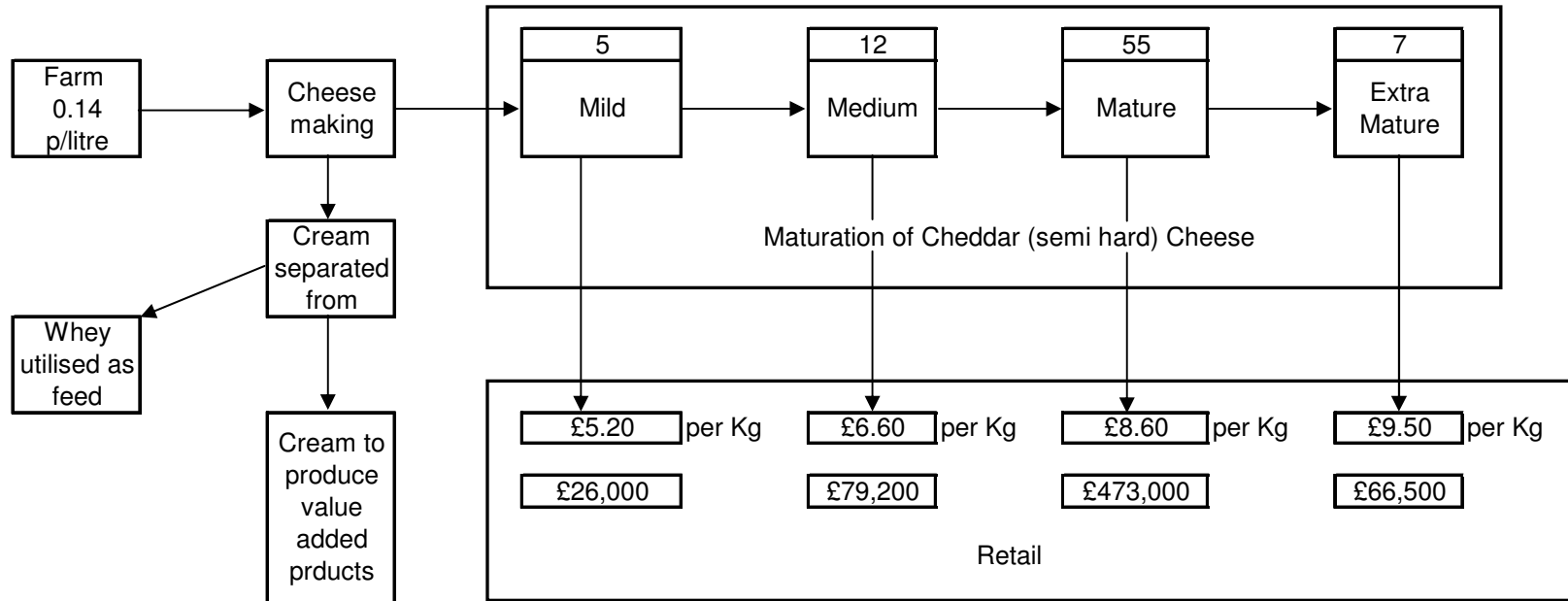


Figure 9.4: Large volume cheese producer



| | | |
|--------------------|-----------|---------------------|
| Total (tonnes) | 50000 | + £283,000,000 |
| Milk Used (litre) | 512500000 | - £95,837,500 |
| byproduct | 1500000 | + £1,500,000 |
| Fixed Overhead (£) | 1000000 | - £1,000,000 |
| | | £187,662,500 |

Figure 9.5: Medium scale on-farm cheese producer predominately using own milk



| | | | |
|--------------------|--------|---|----------------|
| Total (tonnes) | 79 | + | £644,700 |
| Milk Used (litre) | 809750 | - | £113,365 |
| whey disposal (£) | 10000 | - | £10,000 |
| Fixed Overhead (£) | 450000 | - | £450,000 |
| | | | £71,335 |

The final food chain considered here reflects one of the county's most emblematic products: the pasty. The principal inputs to a Cornish Pasty are meat, vegetables, fats and pastry. There are many manufacturers of pasties in the County with varying degrees of 'localness' in their use of inputs although as established earlier inputs such as fats and flour are not available locally. In some instances, up to 80% of meat is Cornish produced and the rest of the inputs are sourced elsewhere. Significant volumes of vegetables are required and these are purchased in Bristol where many Cornish producers sell their vegetables so Cornish vegetables may be used. Cornwall based meat and vegetable processors then supply the pasty manufacturing company with prepared inputs. As Figure 9.6 indicates, the finished pasty is then either distributed through local retailers or moves out of the county and enters the national distribution network. Figure 9.7 puts values to some of the basic links in the value chain and illustrates the difference between the national and local market. In this example unit costs are assumed to be the same but the margin for supplying the local market is considerably greater. The number of pasties produced and sold locally in Cornwall is not known although it is clear that locally produced and marketed pasties can be regarded as a premium product in terms of end price.

Figure 9.6: The pasty chain

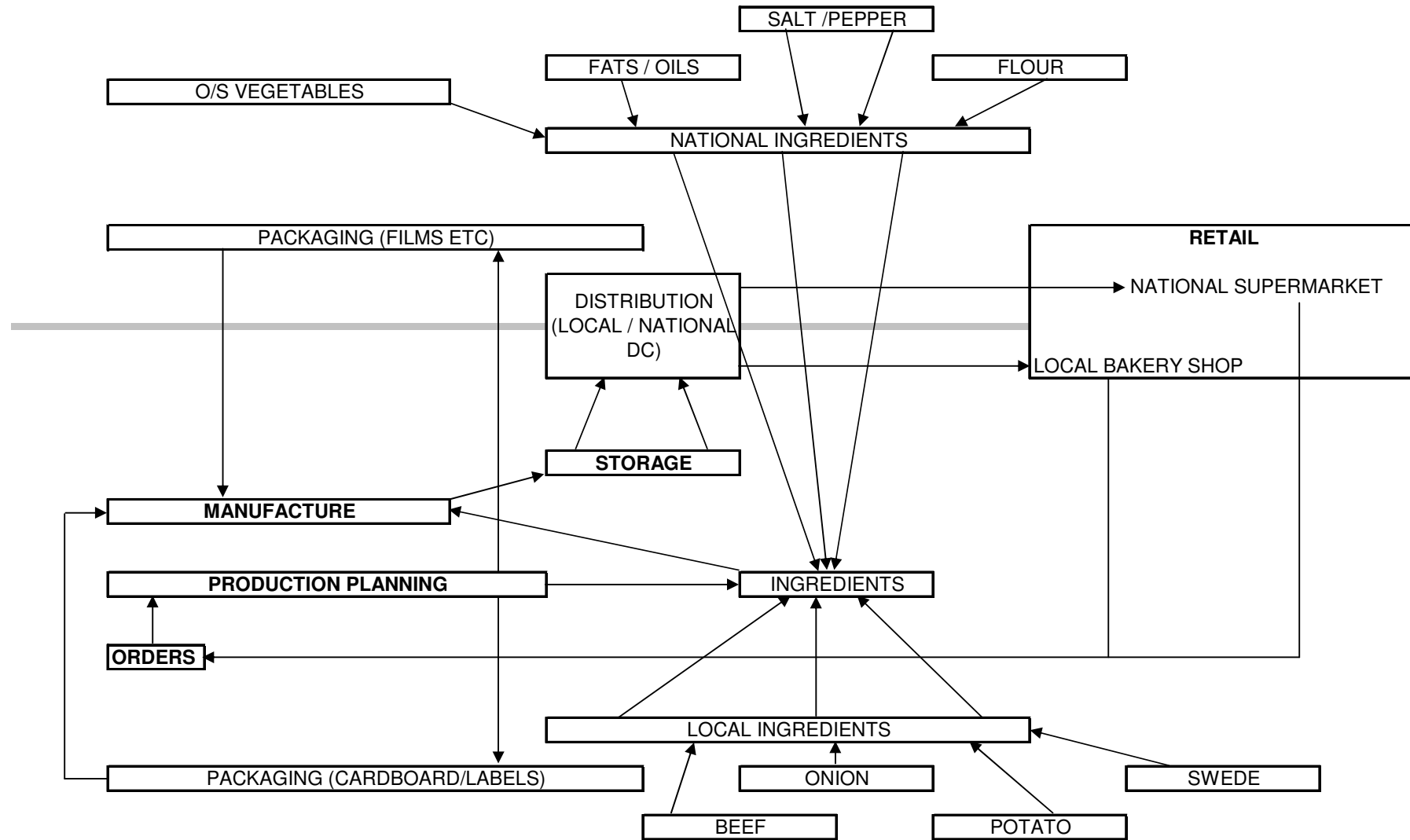
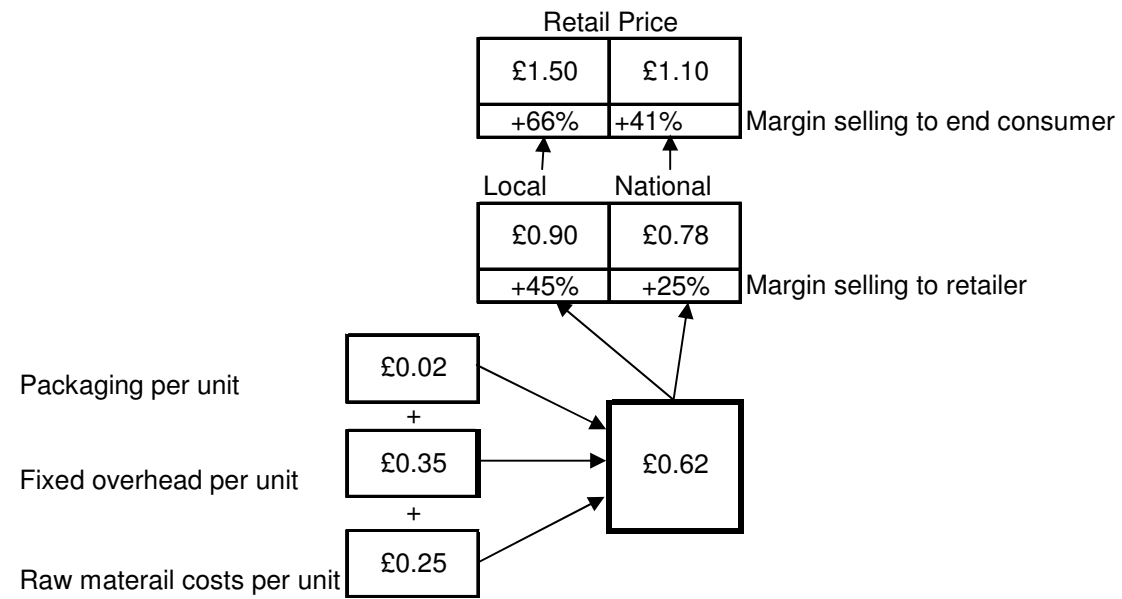


Figure 9.7 The pasty value chain



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swbem.org.uk/
swpesca.co.uk/default.htm
thecornishcyderfarm.co.uk/cyder.htm
tvcambac.co.uk/home.html

Appendix 1: Analysis of entries in Cornwall Food Finder Directory

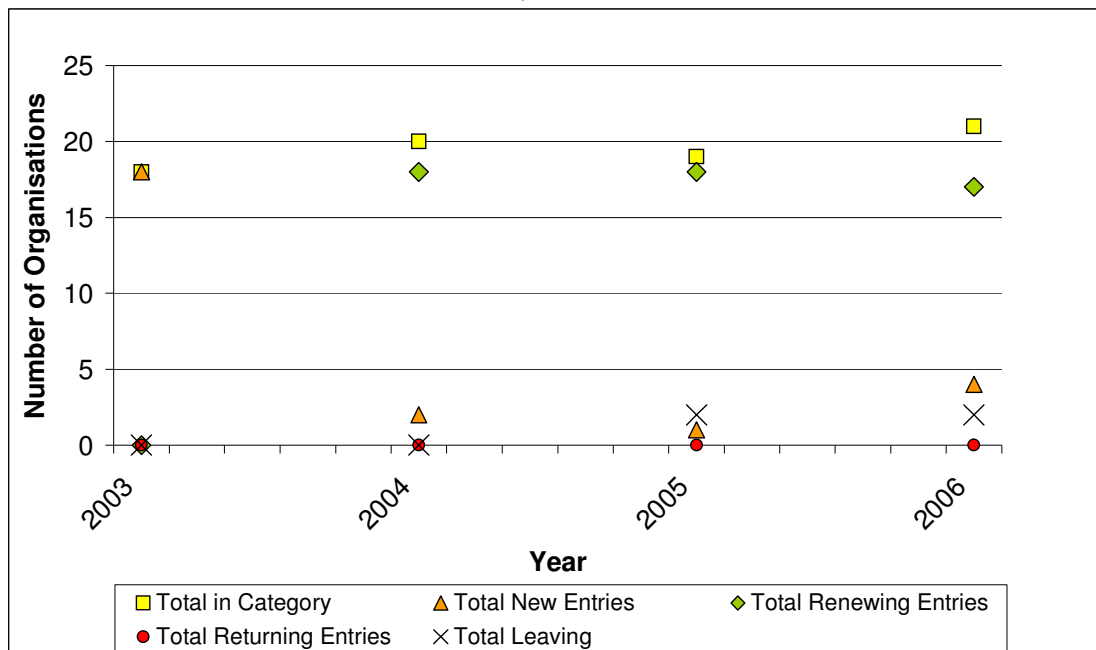
Each section of the Directory has been analysed for each year based on the following categories:

- New entries
- Renewing entries
- Returning entries (after not being in the previous edition of the Food Finder but having been in it before)
- Leavers from previous edition

Bakery & Pastries

This is a quite stable category although the number of renewals is beginning to decline and there has been an increase in numbers leaving.

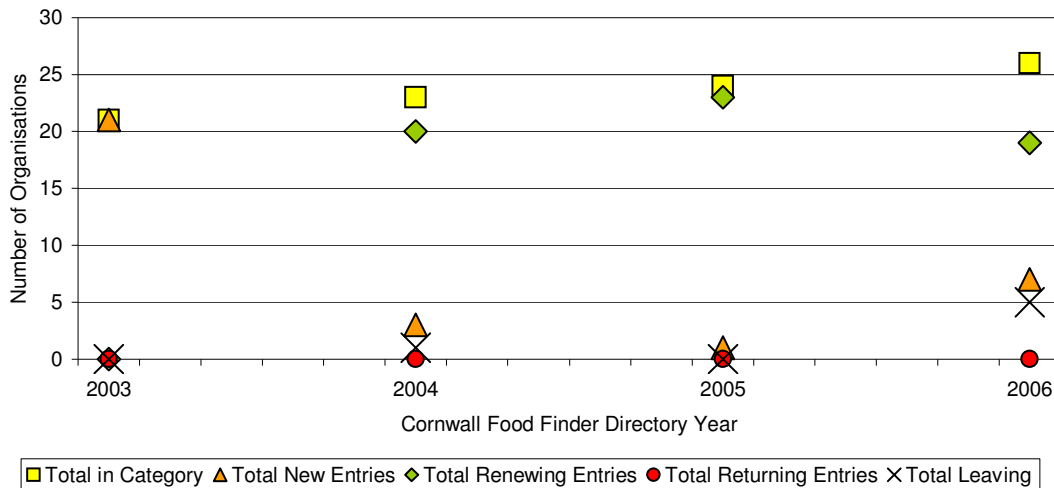
Figure A1.1: Entries in the *Bakery & Pastries* section of the Cornwall Food Finder, 2003-2006



Beverages

The overall trend is for this category to increase. However, whilst new entries are increasing, organisations are also dropping out. The number of renewals fell in 2006.

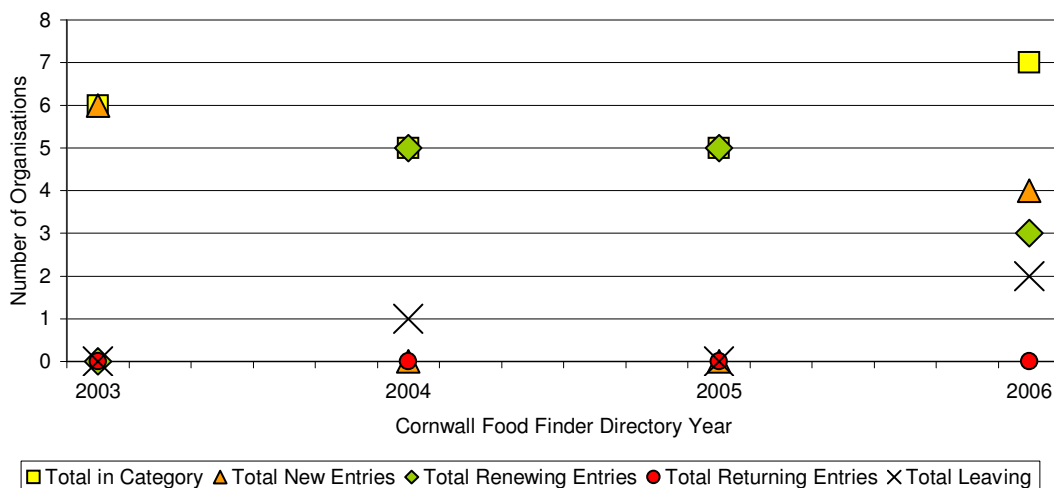
Figure A1.2: Entries in the *Beverages* section of the Cornwall Food Finder, 2003-2006



Confectionary

Again, an overall increase although in 2006 those renewing fell and those dropping out increased. The number of new entries has increased to counter-act the otherwise downward trend.

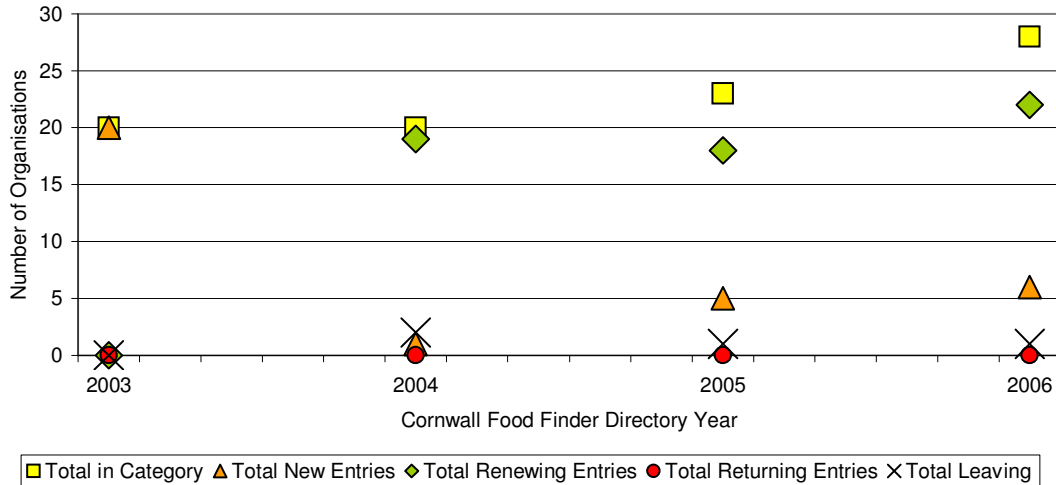
Figure A1.3: Entries in the *Confectionary* section of the Cornwall Food Finder, 2003-2006



Dairy & Eggs

The trends in this sector are very positive with an increase in the total number of entries thanks to increasing renewals and increasing numbers of new entries.

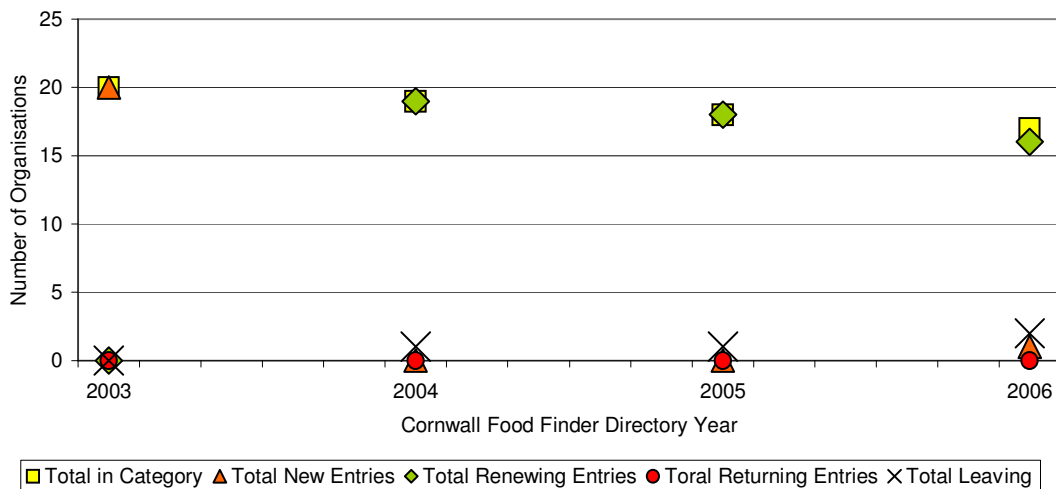
Figure A1.4: Entries in the Dairy & Eggs section of the Cornwall Food Finder, 2003-2006



Fish

This section of the Directory is doing less well. Few new entrants and declining renewals have led to a reduction in the total number of entries.

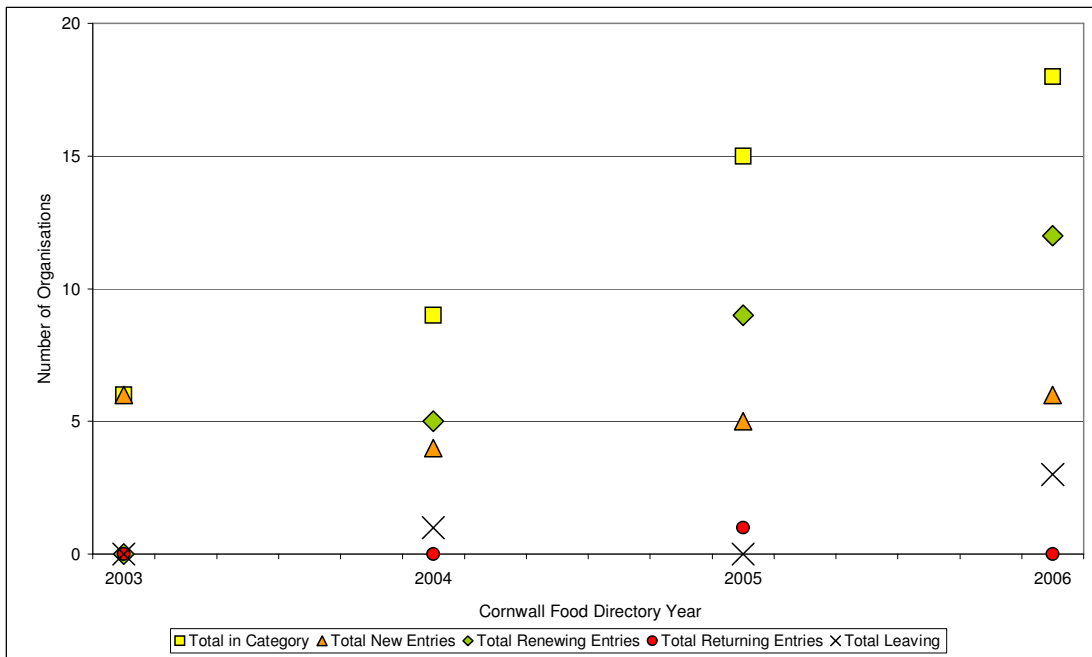
Figure A1.5: Entries in the Fish section of the Cornwall Food Finder, 2003-2006



Fruit & Vegetables

This section of the Directory has experienced steady expansion with an increasing number of renewals and new entries.

Figure A1.6: Entries in the *Fruit & Vegetables* section of the Cornwall Food Finder, 2003-2006



Meat & Poultry

Again, the trend for this section is positive overall although the numbers leaving have increased.

Figure A1.7: Entries in the *Meat & Poultry* section of the Cornwall Food Finder, 2003-2006



Organic

The number of new entries in this category has declined sharply although since 2004 the number of renewals has increased.

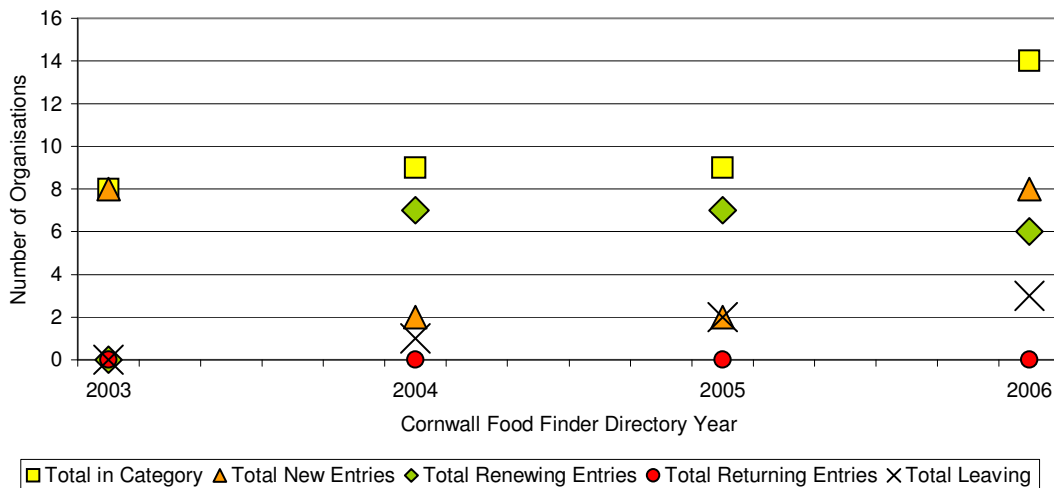
Figure A1.8: Entries in the *Organic* section of the Cornwall Food Finder, 2003-2006



Preserves, Snacks & Sauces

A positive overall total with new entries increasing. That said the numbers leaving are increasing and there is a decreasing number of renewals.

Figure A1.9: Entries in the *Preserves, Snacks & Sauces* section of the Cornwall Food Finder, 2003-2006



Hampers & Caterers

The population of this category is less stable than some but the overall trend is positive. Those leaving are increasing in number.

Figure A1.10: Entries in the *Hampers & Caterers* section of the Cornwall Food Finder, 2003-2006



Distributors

There was a drop in the number of entries in 2005 but other than that so far the trend is positive.

Figure A1.11: Entries in the *Distributors* section of the Cornwall Food Finder, 2003-2006



Retailers

Overall positive trend although new entries down in 2006.

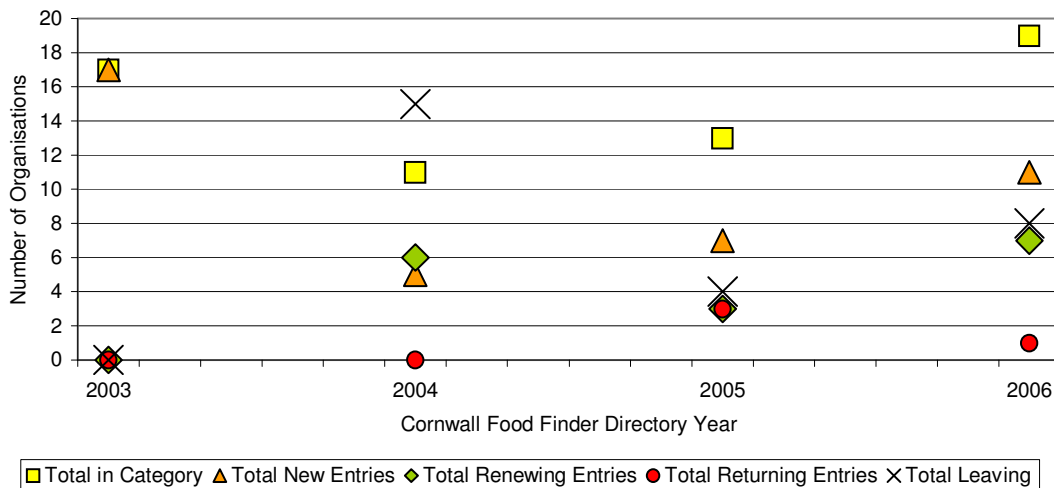
Figure A1.12: Entries in the *Retailers* section of the Cornwall Food Finder, 2003-2006



Supporting Businesses

In many ways this is the most 'dynamic' section with a large turnover of new entries and those leaving alongside some returning but few renewing.

Figure A1.13: Entries in the *Supporting businesses* section of the Cornwall Food Finder, 2003-2006



Appendix 2: Background data to the Cornish Food Economy

Household Consumption, South West region and England

These statistics (see Table A1) are the background to the tables in the main report which calculate how much of any particular food is consumed in Cornwall. Rather than just assume that the people of Cornwall consume meat at the UK average, we have established the variation of the South-west from the national average and taken that as the basis of the calculations. The actual co-efficient used in these calculations was specially prepared by the Meat and Livestock Industry strategy consultation and adapted by the Centre for Rural Research for this project.

The general trends in Table A1 show that consumers in the South West are fonder of cheese, pork and fresh fruit and vegetables than the national average, but consume less un-cooked poultry and fats. These trends can also usefully be compared to the findings in Cornwall Taste of West's Review of the UK Food Market.

Table A2.1: Household Consumption, South West region and England, 2004/05

| | South West | England | SW compared to England |
|--------------------------------------------------|------------------------------------------------------------------------|---------|------------------------------|
| Number of households in survey | 1886 | 16240 | |
| | gm / ml [†] per person per week unless otherwise stated | | |
| MILK AND CREAM | 2092 | 1973 | +6% |
| <i>LIQUID WHOLEMILK, INC WELFARE</i> | 470 | 470 | +0% |
| <i>Skimmed Milks</i> | 1200 | 1133 | +6% |
| TOTAL CHEESE | 130 | 112 | +16% |
| CARCASE MEAT | 239 | 229 | +4% |
| <i>Beef And Veal</i> | 132 | 121 | +9% |
| <i>Mutton And Lamb</i> | 43 | 51 | -16% |
| <i>Pork</i> | 64 | 57 | +12% |
| NON-CARCASE MEAT AND MEAT PRODUCTS | 793 | 811 | -2% |
| <i>Bacon And Ham Uncooked</i> | 68 | 69 | -1% |
| <i>Cooked Poultry Not Purchased In Cans</i> | 51 | 48 | +6% |
| <i>Other Poultry Uncooked (Incl Frozen)</i> | 25 | 32 | -22% |
| <i>Meat Pies And Sausage Rolls Ready To Eat</i> | 35 | 34 | +3% |
| <i>Ready Meals And Convenience Meat Products</i> | 167 | 152 | +10% |
| FISH | 143 | 162 | -12% |
| EGGS (number) | 2 | 2 | +0% |
| FATS | 179 | 182 | -2% |
| <i>Butter</i> | 39 | 34 | +15% |
| <i>Margarine</i> | 9 | 11 | -18% |

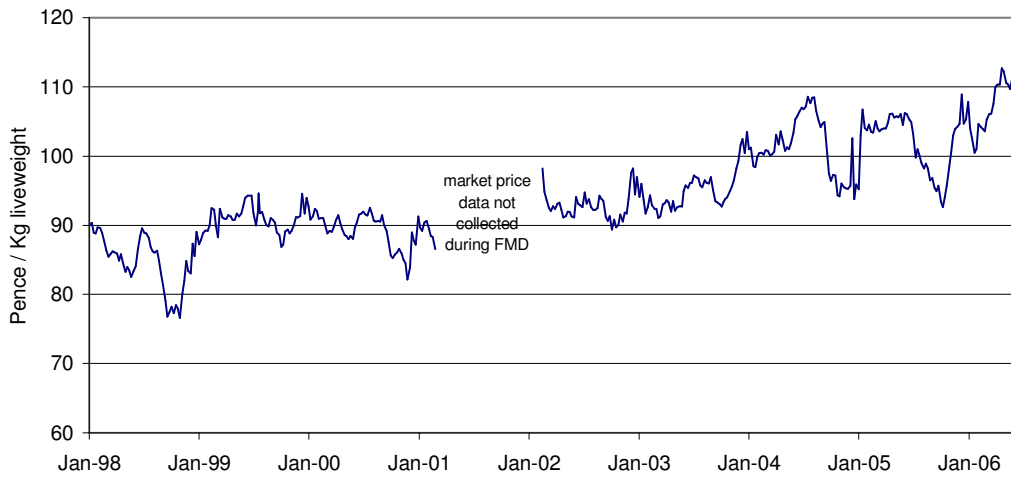
| | South West | England | SW compared to England |
|------------------------------------------------------------------------|------------|---------|------------------------------|
| <i>Vegetable & Salad Oils</i> | 47 | 57 | -18% |
| <i>Reduced fat spreads</i> | 48 | 45 | +7% |
| <i>Low fat spreads</i> | 24 | 23 | +4% |
| 150154 SUGAR AND PRESERVES | 139 | 133 | +5% |
| TOTAL VEGETABLES | 2117 | 1943 | +9% |
| <i>POTATOES</i> | 609 | 561 | +9% |
| <i>FRESH GREEN VEGETABLES</i> | 285 | 237 | +20% |
| <i>OTHER FRESH VEGETABLES</i> | 622 | 548 | +14% |
| <i>All processed vegetables</i> | 601 | 596 | +1% |
| TOTAL FRUIT (FRESH & PROCESSED) | 1287 | 1188 | +8% |
| <i>FRUIT & FRUIT PRODS. NOT FRESH</i> | 380 | 370 | +3% |
| <i>FRESH FRUIT</i> | 907 | 819 | +11% |
| TOTAL CEREALS (EXCL. BREAD, CAKES & BISCS, FLOUR & BRKFAST CEREALS) | 521 | 501 | +4% |
| ALL BREAD | 685 | 678 | +1% |
| FLOUR | 50 | 58 | -14% |
| CAKES, BUNS AND PASTRIES | 184 | 165 | +12% |
| BISCUITS AND CRISPBREADS | 170 | 164 | +4% |
| BEVERAGES | 58 | 57 | +2% |
| ALL OTHER FOODS | 754 | 693 | +9% |
| SOFT DRINKS | 1686 | 1779 | -5% |
| CONFECTIONERY | 129 | 127 | +2% |
| ALCOHOLIC DRINKS | 840 | 770 | +9% |

† millilitres

Beef

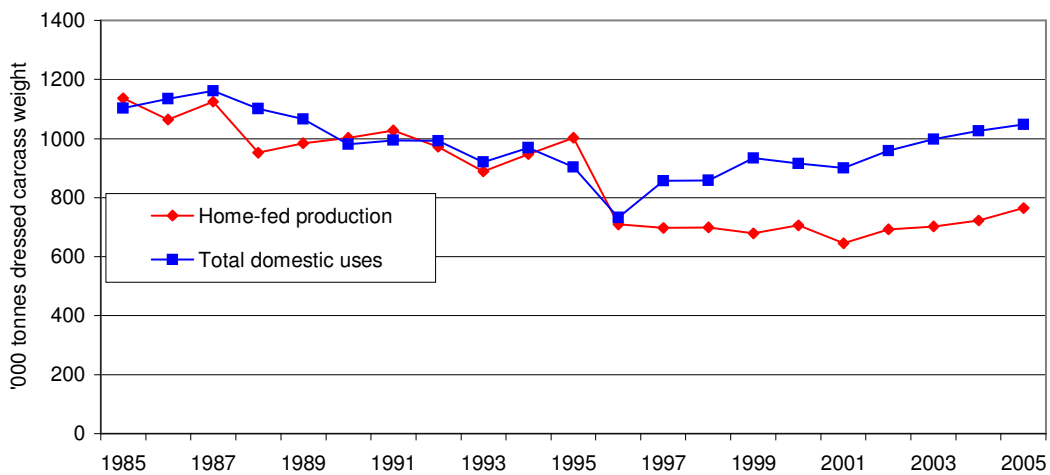
As Figure A2.1 indicates, despite some significant fluctuations, the trend for beef prices is upwards and demand is slowly returning to the levels of the 1980s (see Figure A2).

Figure A2.1: UK Beef market prices, 1998-2006



Source: Defra data.

Figure A2.2: UK Beef supply and use

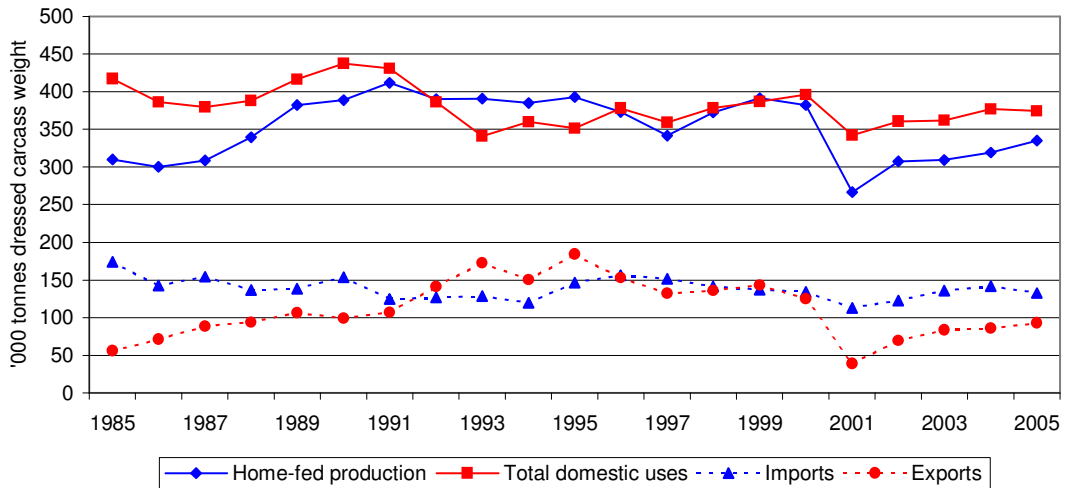


Source: Defra data.

Lamb

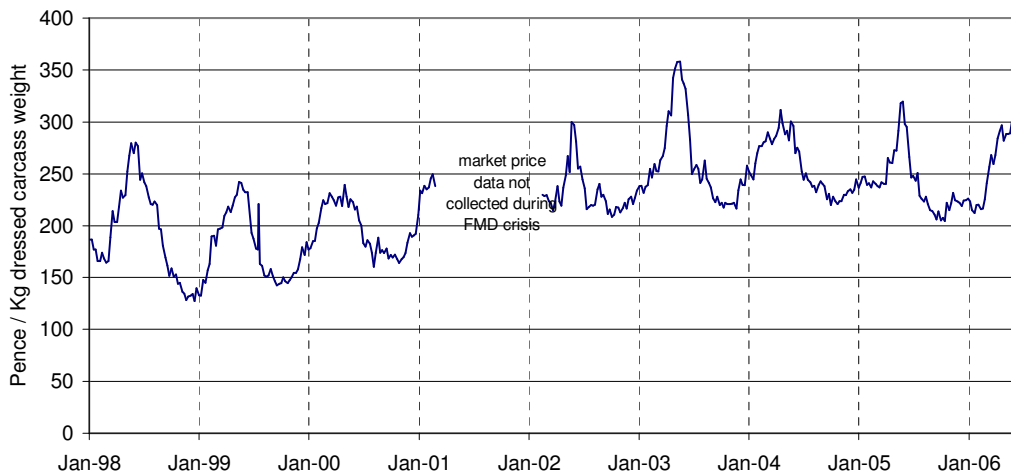
As can be seen from the two figures below (Figures A2.3 and A2.4) the long term trend in the demand for of lamb and mutton has been downwards although this decline appears to be levelling off. There appears to be a slight upward trend in the price of lamb although current prices are below the 2003 highpoint.

Figure A2.3: UK Lamb and mutton supply and use, 1985-2005



Source: Defra data.

Figure A2.4: UK finished lamb market prices 1998-2006

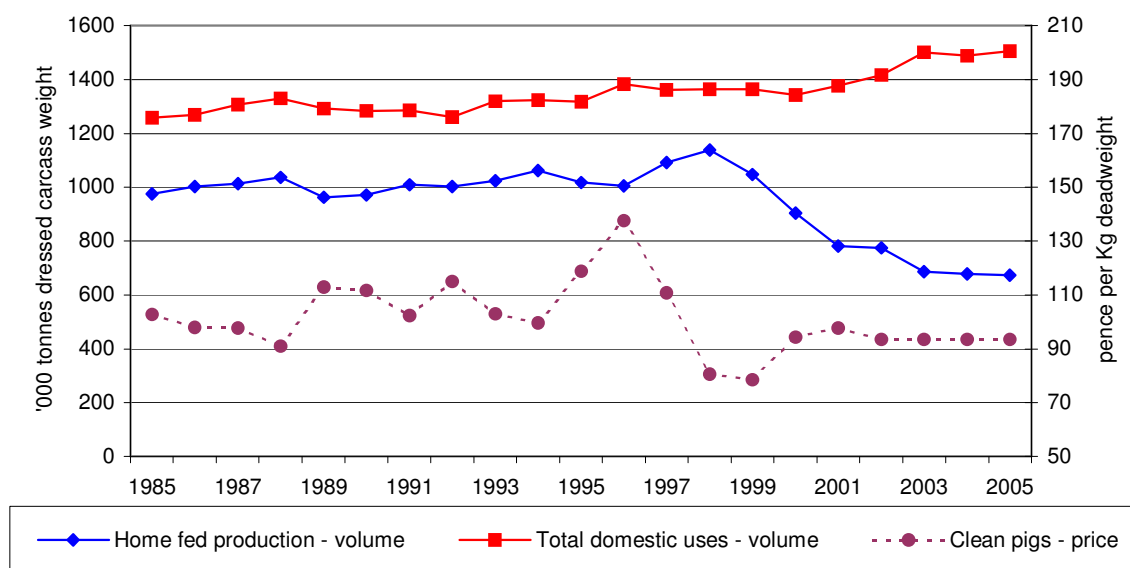


Source: Defra data.

Pigs

The market for pigs is highly competitive with the last few years being some of the most competitive in modern times. After a period of significant restructuring there is some indication that domestic production is levelling off (Figure A2.5). Prices have improved slightly for those pig businesses that have survived (Figure A2.6).

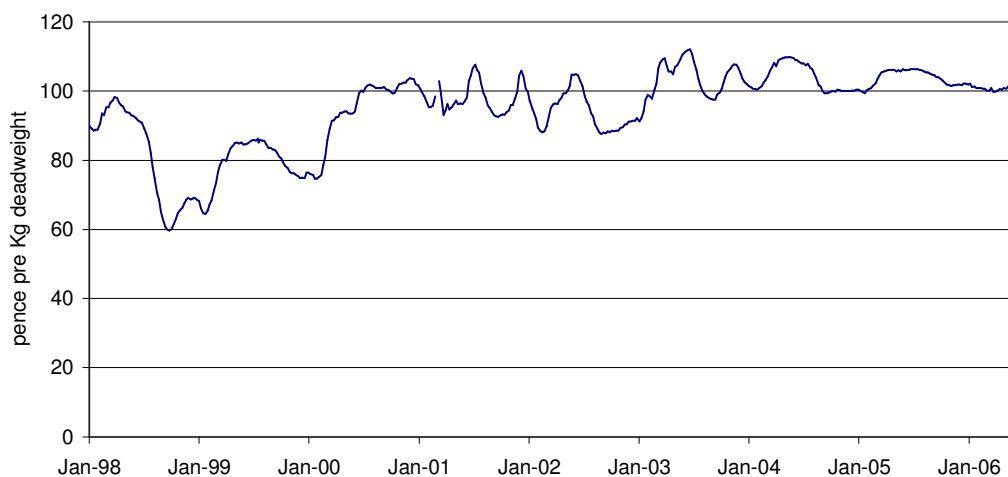
Figure A2.5: UK pig meat supply and use, 1985-2005*



Source: Defra data.

* Published pig meat supply figures usually separate 'pork' from 'bacon and ham' and include in the latter imports which are cured in the UK. These home-cured imports have been excluded from the data in Figure A5.

Figure A2.6: UK weekly pig prices (all pigs), 1998-2006

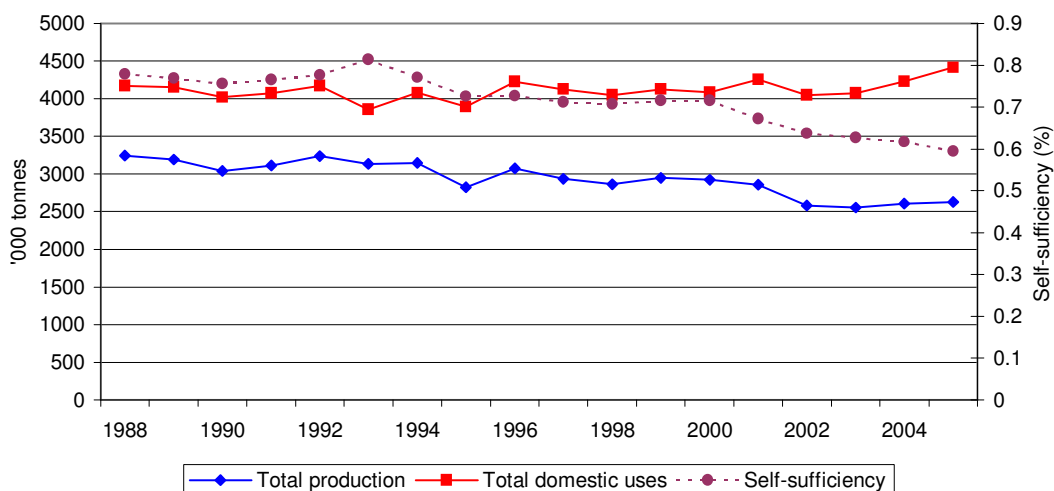


Source: Defra data.

Vegetables (excluding potatoes)

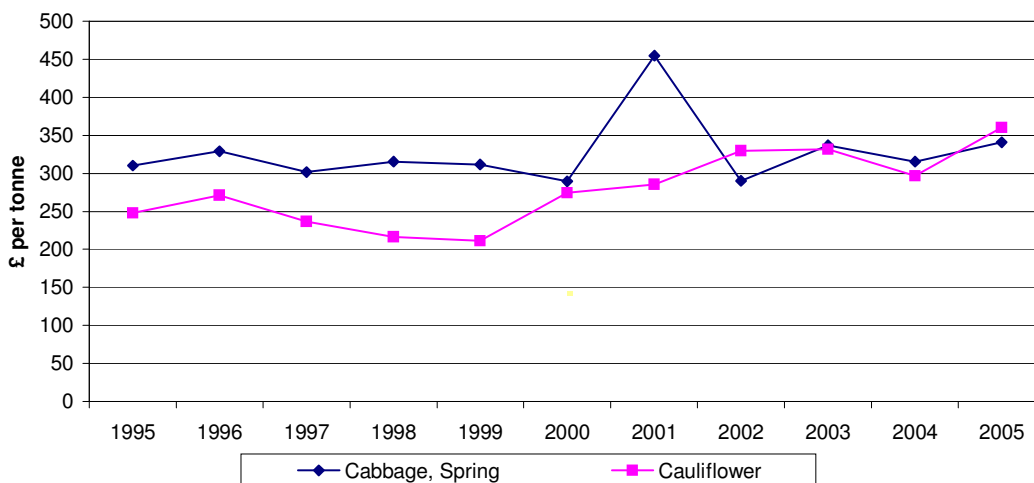
There appears to be strong and growing domestic demand for vegetables and some evidence that the decline in domestic supply has been halted although self-sufficiency continues to fall (Figure A2.7). Despite some fluctuations, the long term price trends for both spring cabbage and cauliflowers are upwards (Figure A2.8).

Figure A2.7: UK vegetable supply and use, 1988-2005



Source: Defra data.

Figure A2.8: UK cauliflower and spring cabbage prices, 1995-2005

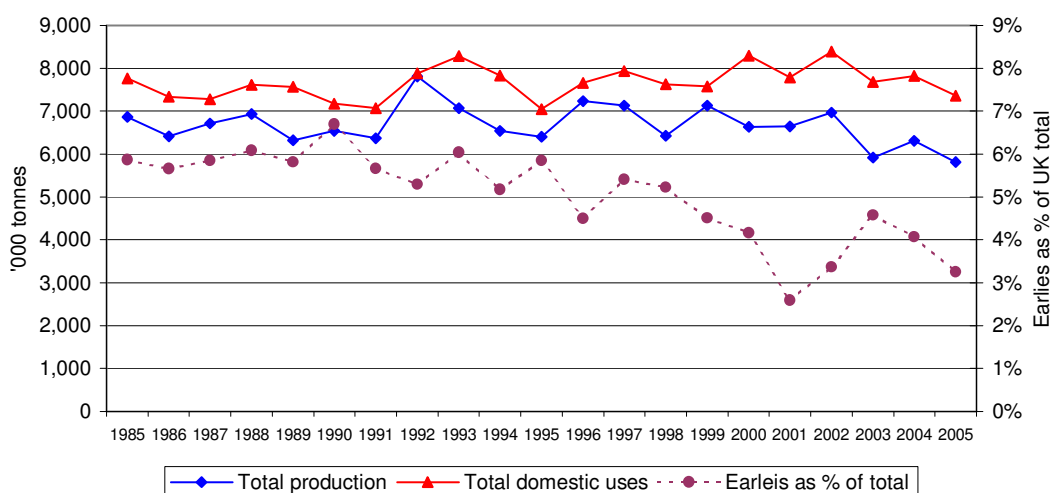


Source: British Horticultural Statistics, 2006.

Potatoes

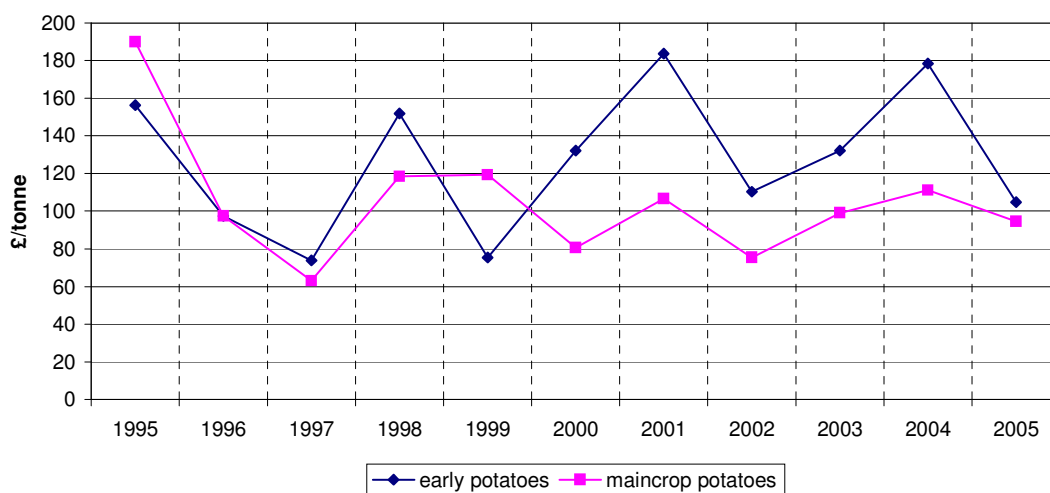
As the Figure A2.9 demonstrates, the importance of early potatoes is generally declining (although they remain particularly important in Cornwall - see main report). Figure A2.10 indicates the wide seasonal fluctuations in the value of the potato crop and also the much higher value of the early crop.

Figure A2.9: UK potato supply and use, 1985-2005*



*Total domestic uses include seed for home crops and chats, waste and retained stockfeed totalling about 20%.

Figure A2.10: UK weekly potato prices, 1995-2005

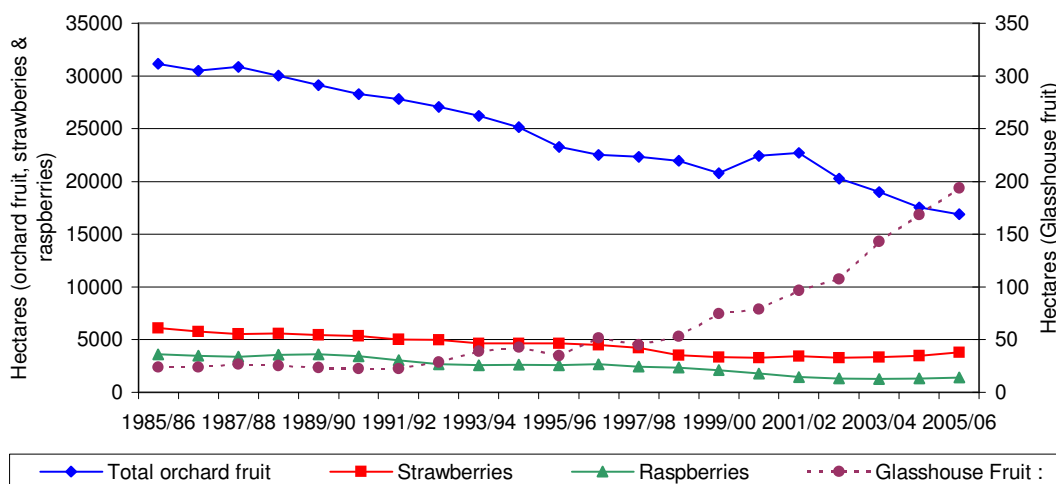


Source: Defra data.

Fruit

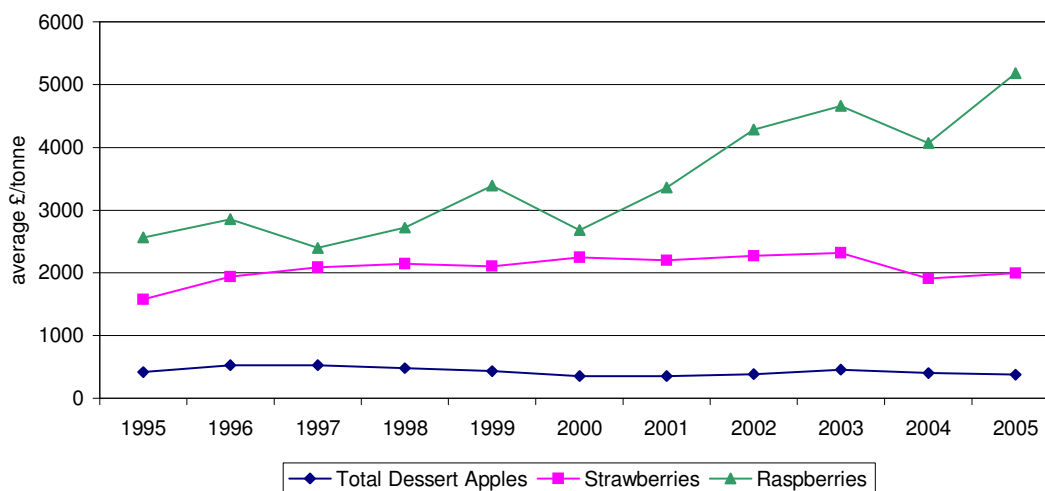
Figures A2.11 and A2.12 demonstrate the largely depressed state of the UK fruit sector. With the exception of glasshouse fruit, production appears flat while the area of orchards continues to decline. Long term price trends are also flat other than for raspberries.

Figure A2.11: UK fruit areas, 1985/86-2005/06



Source: Defra data.

Figure A2.12: UK fruit prices, 1995-2005



Source: Defra data.



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