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Centre for Rural Policy Research

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Summary report

Matt Lobley, Rob Fish, Allan Butler, Paul Courtney, Brian Ilbery, James Kirwan, Damian Maye, Clive Potter and Michael Winter

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**Summary Report** 

#### July 2009

Matt Lobley,<sup>1</sup> Robert Fish<sup>1</sup>, Allan Butler,<sup>1</sup> Paul Courtney,<sup>2</sup> Brian Ilbery,<sup>2</sup> James Kirwan,<sup>2</sup> Damian Maye,<sup>2</sup> Clive Potter<sup>3</sup> and Michael Winter<sup>1</sup>



<sup>1</sup> Centre for Rural Policy Research, University of Exeter

<sup>2</sup> Countryside and Community Research Institute, University of Gloucestershire

<sup>3</sup> Centre for Environmental Policy, Imperial College, London

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For further information, please contact Dr Matt Lobley, Centre for Rural Policy Research, Department of Politics, University of Exeter, Amory Building, Rennes Drive, Exeter EX4 4RJ.

Tel: 01392 264539. Email: m.lobley@exeter.ac.uk

# Analysis of socio-economic aspects of local and national organic farming markets

#### **Executive Summary**

The purpose of this study was to take a fresh look at the nature of organic production, consumption and marketing in England and Wales in order to better assess its current and likely contribution to rural development and its ability to meet consumer expectations. Based on a mixed methodological approach the study consulted with 2,300 individuals to reveal a complex and multi-dimensional sector with a highly committed consumer base.

Compared to other sectors of UK agriculture, organic production is still small and the findings of this research reveal that the sector is also geographically very unevenly distributed. Moreover, the organic sector is also bifurcated in the sense that the 10% largest farms sample account for over half of sales and half of all full time staff employed.

Consumers of organic products emerge from this study as a distinctly well educated, and overwhelmingly white, social group, associating the purchase of organic food with concerns for bodily health and environmental sustainability. They are also brand loyal, expect to continue to consume organic food in future, and unlike non consumers of organic food, are relatively price insensitive. Nonetheless, the research also suggests that organic consumers can be segmented into different types of purchasing groups; from deeply committed organic consumers preoccupied with issues of food traceability, quality and localness, to ad-hoc purchasers of organic food, agnostic about many of these claims.

The research suggests that, due to its relatively small contribution to food production, organic farming does not offer policymakers a broad platform from which to launch future rural development policies, but argues that organic production involving large numbers of small, locally embedded producers, is nonetheless likely to be beneficial to rural economies, albeit in geographically uneven ways. The study argues that organic producers are more likely to be willing to diversify their operations and enter into innovative marketing arrangements in ways which generate more employment overall and a greater proportion of non-family labour on their farms. In particular, the study identified a group of highly committed, typically small scale and locally orientated, organic producers who manage a more diverse range of marketing channels compared to those with a more national and regional market focus.

The study further suggests that while prospects for the survival of the smaller, locally orientated, organic producers depend, inevitability, on enterprise profitability, less than 5% of farmers surveyed were currently planning to leave the sector. Importantly, the area of land farmed by those intending to leave organic farming is less than 1.5% of the total area covered by the study.

For many of those planning to continue to farm organically, the future will be characterised by dynamism. Indeed, this study has identified a general trend towards increasing the area farmed - with close to 30% of respondents intending to expand the area that they farm over the coming years - adding more marketing channels, increasing on-farm processing and, probably as a consequence, increasing labour.

However, the study highlights that the long term viability of smaller producers in the sector depends on mitigating the escalating cost and availability of primary organic

inputs such as feed and seed, limiting the concentration of box schemes by supermarket chains and national organic suppliers, as well as facilitating adding value for producers in regions with limited demand for organic food and a shortage of processing capacity. In addition, the study shows that the regulation of organic farming is perceived to be too bureaucratic and congested in terms of the number of organic certifying bodies and that, alongside the need to further incentivise organic production through agri-environmental schemes, the setting and control of organic standards should be key government priority in this area.

#### 1 Research aims and objectives

The purpose of this research was to examine the socio-economic characteristics of organic food consumption, marketing and production in England and Wales. Drawing on a combination of extensive and intensive surveys with consumers and organic producers, consultation with policy stakeholders, and desk review, the research aimed to describe and account for:

- The socio-economic impacts of the organic farm supply chains on rural development;
- The extent to which organic food delivers consumer expectations; and
- The barriers affecting conversion to organic farming and expansion of existing organic farms.

In order to measure, benchmark and map the development of the organic farming sector and its main component parts these three overarching research aims were underpinned by seven key objectives, all which have been delivered in full. These objectives were to:

- 1. Review existing knowledge on organic supply, organic food chains and barriers to the expansion of organic production;
- 2. Develop simple value chain models and create a national benchmark for organic businesses based on gross output values, net output values, physical flows of commodities (including use of environmental resources), flows of services/consultants, employment, destination of sales, and imports and exports;
- 3. Examine the impact of organic farming on rural development in terms of local employment and income multipliers;
- 4. Develop whole chain models to examine upstream and downstream linkages of organic businesses to develop a detailed analysis of their relationships with different retail outlets which sell organic produce, and those that supply the production process;
- 5. Identify and explore opportunities and barriers to the expansion of organic production through both increasing output from existing producers and the conversion of non-organic producers;
- 6. Consider the extent to which the current supply of organic food meets consumer expectations, such as regarding food quality, safety, seasonality;
- 7. Develop implications for rural policy at regional and national scales in consultation with Defra and other stakeholders.

In sum, the research has solicited the views of over 2,300 individuals to meet the three project aims. As a result, the study has generated a substantive body of new and updated evidence detailing the characteristics of the organic sector and assessing the problems

and prospects for its development. This summary report describes the principal aspects of the methodology employed in the research, areas of inquiry pursued and key conclusions drawn.

#### 2 Research methodology

The research project employed a mixed methodology. The key components of this approach, and the relationship to wider project processes are illustrated in Figure 1 below. First, the process encompassed an *extensive postal survey of organic producers in England and Wales* to solicit information about different facets of the production and marketing of organic food. The sample underpinning this survey was drawn from a Defra database of organic farms in England and Wales and stratified using the Location Quotient (LQ) methodology.

The LQ is a ratio measure which, by controlling for the varying size of counties and unitary authorities (CUA), provides an indication of the relative spatial concentration of organic farming in England and Wales. Further details of the LQ methodology are outlined in the full technical report.

Second, the extensive survey was complemented by a series of *in-depth interviews* with producers to help develop *whole chain models* of organic businesses and their relationships with suppliers and retail outlets, and underpin an assessment of the local economic impacts of organic farms through the use of *LM3 modelling*. Participants in this process included respondents who had completed the postal questionnaire survey but also new participants drawn from a database of organic producers provided by Defra and those recruited in the course of the research through snowballing and purposive sampling. Like the postal survey, the geographical stratification of the sample was informed by the LQ methodology. Precise descriptions of the analytical procedures employed for the LM3 work are outlined in the full technical report.



Figure 1: Schematic diagram of methodological relationships

Third, the research team undertook an *extensive postal survey of consumers* to gauge behaviour and attitudes towards organic produce. This survey element had different branches to it: a *national consumer survey*, which included a mixture of people who do *and* do not purchase organic food which was designed to provide a benchmark around which comparison could be made between different 'types' of consumer; a survey of customers with a specialist organic retailer serving a metropolitan population ('Planet Organic'); a survey of customers with three regional box schemes ('Riverford', 'River Nene' and 'River Swale'), and finally a survey of consumers of a smaller box scheme which emphasises seasonality and local production as core elements of it business ('Growing with Nature').

Fourth, four *focus group meetings* were convened to provide the opportunity for consumers and producers to discuss the results of the project and provide feedback on some of the key questions generated by the study. In particular, the focus groups enabled the participants to make up-to-date comments about the current conditions in local and national organic markets in the light of the significant economic changes that had taken place since the project was commissioned.

In addition, *stakeholder meetings* were convened before the consumer and producer surveys were conducted in order to ensure that issues facing those purchasing organic food, as well as the farmers and growers, were fully covered and discussed. Producers, consumers and stakeholders were also invited to a *policy forum* held in February 2009, partly to share some headline results but more importantly to bring together all aspects of the research project, verify significant findings and to consider the policy implications of the research.

By using this broad range of techniques, the project team has ensured that the results, conclusions and recommendations of the research are underpinned by a broad and deep base of evidence.

#### 3 Current evidence base

In the process of conducting this research three extensive literature reviews have been undertaken covering the academic and policy literature on organic farming markets; Socio-economic aspects of local and national organic farming markets; and information on the organic market for the main sectors, including barriers to entry and expansion in response to supply opportunities. The key findings from these reviews have been synthesised and further developed in the full technical report. Our review of the current evidence indicates a large and growing body of literature on organic farming, but also some significant gaps, particularly around the potential of organic farming to contribute to rural development. It is equally clear that most, if not all, previous studies have tended to focus on a single aspect, such as marketing, consumer behaviour or production, rather than attempting an integrated analysis as is the case here.

#### 4 Buying organic food

This section draws on data from the extensive consumer survey to develop insights into the current socio-economic profile of organic consumers, what it is they are buying and where from, what motivates them to purchase organic food and, importantly, what they expect from organic food<sup>1</sup>. It also draws key conclusions about the attitudes of those who do not make purchases in this sector.

<sup>&</sup>lt;sup>1</sup> In considering these results it is important to recognise that the sample of consumers was deliberately biased towards consumers of organic food, based on the assumption that there were different 'types' of organic consumer,

#### 4.1 Organic consumers and non consumers – key social distinctions

The survey data reveals that consumers and non-consumers of organic food can be distinguished in terms of their educational attainment and ethnic origin, much more so than by the social categories of age and gender<sup>2</sup>. In particular, the research suggests organic consumers are *highly educated and predominantly white*. In our survey, 63.8% of organic consumers were educated to at least degree level and/or were members of a professional institute, rising to 70% in some branches of the study. The equivalent figure is 25.0% for those that do not buy organic food. For this latter grouping, 30.8% of respondents were educated to school leaving age level only. In the case of three box schemes 98% of organic consumers overwhelmingly described themselves as white. Of those who do not buy organic food, the ethic mix of the consumer base is greater, with 13.2% describing themselves has having a non-white origin. However, there are differences within the sample. One of the branches of the survey - *Planet Organic* - which serves a metropolitan population - has the greatest number of customers (12.1%) describing themselves as having an 'other' ethnic origin - mostly of mixed race or of Asian origin.

#### 4.2 Organic consumers: purchasing patterns, motivations and expectations

67.6% of all respondents purchased organic food at least once a week, (rising to 70% among most box customers), while only 7.5% made purchases less than once a month. Of the types of organic foods purchased, it was organic vegetables that most typified buying behaviour. Organic vegetables were bought by 96.9% of all organic consumers, followed by eggs (63.0%), and organic chicken (58.7%). Of the outlets used to purchase organic food, a significant majority of organic consumers (84.0%) buy at least *some* of their organic food from supermarkets, compared with 85.3% for purchases from organic box schemes (partly a reflection of the bias towards box customers in the survey design). In comparison, 32.8% of respondents made organic purchases at health/whole food shops, similar to that at farmers markets, while just over a quarter of respondents (27.2%) purchase directly from farm shops.

By relating outlet data to purchasing behaviour it is notable that there is a strong statistical association between the purchase of organic milk, yoghurt and fruit and the use of supermarkets. This association may be a reflection of the convenience offered by such stores as well as perceptions regarding the perishable nature of the products. In contrast, it is also notable that consumers buying organic meats were more likely to use farmers' markets, farm shops, butchers' shops, meat box schemes and to a lesser extent internet sites and specialist organic shops. Some food types have less distinctive patterns. For instance, those who buy organic cheese (36.8% of all organic consumers) source produce across a wide range of outlets.

Analysis of the survey data reveals that only 21.5% of respondents were not interested in buying organic food direct from producers. More important were perceptions regarding the presumed expense of doing so (38.7%) and the lack of local suppliers (30.7%). Many respondents (31.7% of those who do not currently buy direct) had simply not thought about the possibility of making such purchasing decisions. Most significantly, nearly half of consumers who do not buy direct from producers cited the convenience that supermarkets provide.

and further that a poor return from one branch of the survey - Planet Organic consumers – has skewed the sample towards 'box consumers'

 $<sup>^{2}</sup>$  Female respondents accounted for 85% of *all* returns in this survey (i.e. both consumers and non consumers of organic products. However, some evidence does suggest that women are likely to account for the majority of committed organic consumers.(e.g. Hughner et al 2007).

Our survey suggests that most regular consumers of organic food in the survey do not appear to be particularly price sensitive. That is, they do not expect organic food to be comparable to non-organic food in terms of price, and the quantity of organic food that they purchase is not particularly sensitive to their income level. Responses to our survey largely discount the possibility that consumers of organic food purchase food as a "special treat" for themselves, friends or family: purchases are overwhelmingly seen as a mainstream part of diets.

Consumers of organic food cite concerns with health, food safety, environmental impacts, food miles and a desire to support for British farmers as important underlying reasons for making purchases. Of these concerns, the view that organic produce is healthier for consumers and children is the most significant overall factor among organic consumers (84.1%). These themes translate into the expectations that consumers then bring to their understanding of organic food, though there are variations by food types:

- Expectations surrounding the purchase of *organic vegetables* rested on them being free from chemical residues, environmentally beneficial and GM-free. Indeed, 93.1% of consumers thought that organic vegetables should be free from pesticides, an idea coupled with the expectation that they would taste better;
- Expectations surrounding the consumption of *organic meat*, in contrast, often turned on the maintenance of high animal welfare standards, meat being free of growth hormones and use of free range systems. Moreover, our survey suggests that consumers of organic meat do not expect it to be as cheap as non-organic meat, nor do they expect organic meat to be leaner;
- Expectations surrounding the consumption of *organic milk* reflect a strong concern that milk has been produced to the highest animal welfare standards, but also that it should be free from antibiotics, and is safer than non-organic milk. Like meat, there is little expectation that organic milk will be as cheap as non-organic milk.

It is interesting to note in all of these contexts that expectations often go significantly beyond the requirements of organic certification itself. This suggests that there may be a danger of an 'expectations gap' developing between what is required for organic certification and what consumers expect organic food to deliver.

#### 4.3 Organic consumers – four distinct types

Alongside these general observations the research also points to some significant differences in motivations and expectations between consumers based on where they purchase organic food (i.e. via box schemes, specialist retailers or supermarkets), as well as their relative preferences for local, fresh and organic food. A hierarchical cluster analysis was applied to data to construct distinct consumer profiles among organic consumers around which these differences could be teased out and grouped together. These profiles are termed "organic *occasionalists*", "organic *cautionists*", "organic *purists*", and "organic *localists*". They are designed to capture different tendencies in attitudes and approaches to purchasing behaviour. Their key characteristics are summarised in Box 1.

In the survey, the majority of respondents (46.9%) were *occasionalists* and the fewest *localists* (13.5%), while *cautionists* and *purists* accounted for, in turn, 20.2% and 19.4% of the sample. With respect to the social composition of these groups some interesting and statistically significant differences between can be noted in terms of age and education. For instance, while *localists* have a concentration of members in the age

range 25 to 39 (42.6% compared to an average of 34.1% for all clusters) *cautionists* have the oldest age profile overall with 19.3% of members in the 55 to 64 age range and a further 8.5% over the age of 65. In terms of educational profile, 74.1% of *localists* have achieved a degree or higher qualification, compared to 61.2% of *purists*, and a sample average of 66.3%.

#### **Box 1: Organic Consumers – Key Clusters**

**Occasionalists** are infrequent purchasers of a narrow range of organic products. Not only do they tend to buy only a few products on an infrequent basis, they also tend to lack strong opinions and expectations regarding organic food. This group is less likely to buy direct from producers or from a specialist retailer, preferring instead to purchase organic food from supermarkets. In marked contrast to the other organic consumer groups, *occasionalists* are more likely to buy organic food as a treat and to be income sensitive.

**Purists** are driven more by personal and family health/well-being motives. They tend to be very frequent purchasers of a wide (indeed, the widest) variety of organic products suggesting that 'organic' is an important part of their lifestyle. They are also the most likely to use 'alternative' outlets such as health and wholefood shops lending weight to the idea that they are less motivated by a desire to support British farmers and the environment, for example, and more by a self/family centred motivation to consume what is perceived to be a healthy diet. Thus for this group 'organicness' is of greater significance than localness or support for domestic producers and a concern with food miles.

*Localists* are strong supporters of box schemes and farmers' markets. These consumers exhibit strong environmental motivations and a desire to support British and/or local farmers. Many expect, and indeed appear to enjoy, the opportunity to interact with producers and give feedback. Perhaps because of this they frequently stress the importance of trust in the source of their food and, linked to this, the importance of knowing where their organic produce is from.

*Cautionists* tend to have less strongly held opinions regarding what they expect organic food to deliver for them but strongly held expectations and motivations regarding the environment and significantly, knowledge of the source of their organic food and trust in that source and production system. *Cautionists* tend to buy organic food weekly.

#### 4.4 *Reasons for not purchasing organic food*

21.7% of respondents to our national consumer survey did not currently buy organic food. These consumers were asked about what would change their mind and encourage them to buy organic food. Our research demonstrates that price is the main factor, a finding that concurs with existing evidence. Specifically, 78.6% agreed that if organic food was cheaper they would be more likely to make purchases. However, this may also be connected to income, as 57.8% also agreed that more income would encourage them to purchase organic food. These results are interesting given that most current organic consumers in the survey were not particularly price sensitive. One potential explanation is the presence of a distinct market segment that is genuinely more price sensitive and therefore may never purchase organic food in significant quantities if any kind of organic price premium is perceived to exist. Alternatively, it may be that once people start buying organic food and appreciate its characteristics, price becomes a less important motivating factor. Approximately 50% of those that do not currently purchase organic food thought that easier availability of organic food and better quality could influence their decision to buy. Only 21.0% of those not currently buying organic food agreed that nothing would change their mind. This would suggest that there is the potential to encourage more people to buy organic food in the future.

#### 5 **Producing organic food**

Based on an extensive postal survey of organic producers in England and Wales, this section identifies the wide range of organic produce being produced and considers the varied routes by which this produce reaches the market. Using farmers' own assessment of the main focus of their marketing activities the analysis identifies distinct local, regional and national market orientations, exploring what different market orientations may mean in terms of the type of food that is produced and how it is delivered to the market.

#### 5.1 Overview of the producer survey

The producer survey produced 475 useable returns. Most farms (81.9%) were located in England, with the remainder in Wales. The total area of organic farms in the survey was 84,168 hectares, of which 62,260 hectares was registered as organic. A further 7,708 hectares was in organic conversion. The registered organic land captured by the survey accounts for 21.3% of all organic land in England and Wales. The mean size of survey farms was 177 ha, of which 132 ha was registered organic. A significant minority (22.1%) of farms in the survey had some land in conversion, accounting for 7,708 hectares (9.2% of the total farmed area captured by the survey) over half of which represented new entrants to the organic sector.

The total number of people working on organic farms in the survey was 2,557, of which 38.6% were engaged on a full-time basis. 35.6% of labour was provided by family members with the remainder employed either on a full-time, part-time, casual or seasonal basis.

The overall value of sales recorded by the farm survey was £76 million, of which 73.7% was directly associated with organic enterprises. The mean value of organic sales per farm was £135,894 although, if the median value is considered, this is much lower at £54,000, suggesting that a few farms account for a disproportionate amount of organic sales. Indeed, 80% of all farms have organic sales that are below £200,000 and just 10% of farms in the survey account for over 50% of sales. Of these, one-third are dairy farms and a further 40.5% are mixed farms. The smaller organic producers in our survey, whilst numerically important, contribute a relatively small proportion of total sales.

#### 5.2 Market channels and market orientation

The organic producer survey collected a range of data on producer orientation to different types of market, the specific routes to market currently used and changes over time. Focusing on the first destination of organic sales the survey revealed that:

- Marketing cooperatives, contracts with processors, farm-to-farm sales and sales to wholesalers are the most frequently occurring market channels, accounting for 59.8% of all marketing channels recorded in the survey;
- Marketing cooperatives and contracts with processors in particular are the market channels perceived by producers to be the most important, (in 26.2% and 16.5% of cases respectively) and record the highest proportionate value of produce traded through different channels, (again accounting for 26.4% and 24.0% respectively of all sales by value;
- While the choice of marketing channels on farms is relatively diverse across the whole sample, over a third of farms (35.9%) use a single marketing channel. The eastern region, north east and south east in particular are more diverse than England

as a whole, while in the east midlands the marketing of organic produce is notably more concentrated. Differences are also reflected in farm type: the survey data underline the point that dairy farming has fewer opportunities for marketing produce through multiple channels compared to mixed and horticultural holdings.

In terms of the primary geographical orientation of the market 34.8% of respondents suggested that the focus of their organic sales activities was local, 28.1% regional and 37.1% national. In a geographical context Wales, the North East and the East and West Midlands have a larger share of farms with a largely national market orientation, the North West and Yorks & Humberside are characterised by a relatively larger share of business with a regional market focus, whereas the South East, South West and the Eastern region in particular, have a large concentration of producers strongly orientated towards the local market. The survey further revealed that:

- In terms of the total value of organic sales recorded by the survey, those farms focusing on local markets accounted for 13.7% of all sales, while those with a regional or national focus accounted for 35.4% and 50.9% respectively. Thus, although a local market orientation is important in terms of the number of producers involved, in terms of its contribution to aggregate sales income it is much less important;
- There are significant differences between marketing strategies depending on where a farmer sees their main market. For instance 36.7% of the value of all produce sold by locally oriented farmers is sold via direct routes<sup>3</sup> compared to just 7.2% and 5.2% respectively for those with a regional or national orientation, producers with a 'local' orientation. On the other hand, locally orientated producers sell a much lower proportion of their produce (by value) via a contract with a processor or abattoir compared to those with a regional or national orientation (the figures being 9.5%, 21.2% and 21.7% respectively). Marketing co-operatives are also a much less significant route for locally orientated farmers than for those with a regional or national market orientation. That is to say, these latter producers tend to sell indirectly to the consumer through longer and more complex supply chains;
- Farmers with different market orientations tend to operate a distinct range of enterprises. Producers with a local market orientation are less likely to operate dairy or cereal enterprises on their farms but are much more likely to produce vegetables, salads, fruit, herbs and nuts compared to those with a regional or national market orientation. Sheep and beef enterprises are almost equally common for all three groups of farms. Furthermore, farmers pursuing a strategy of local sales are significantly more likely to operate very small farms (under 25 ha) compared to those with a regional or national orientation. Conversely those with a strong national market orientation are significantly more likely to operate large farms of 200 ha or more;
- In terms of the qualities and characteristics of organic produce, our survey revealed that those with a local orientation are much more likely to emphasise, and differentiate, their produce through appeals to 'localness', 'freshness', 'organicness', 'healthiness' and 'traceability' than regional and nationally orientated suppliers.

<sup>&</sup>lt;sup>3</sup> Direct routes are defined here as those that directly serve the end consumer with no intermediary stages, such as sales via own box scheme, at a farmers' market, farm gate sales, own farm shop sales or direct to consumers from internet sales.

#### 5.3 Comparing consumer and producer expectations and eliciting feedback

When data from the consumer and producer surveys are compared, our results suggest there is a considerable gap between what farmers suggest they are offering consumers and what consumers themselves state they expect from organic food. Overall farmers tend to emphasise less the importance of different attributes of organic food than consumers, though share with consumers a concern to assign significance to organic food's 'localness'. Interestingly, when we distinguish between producers engaged in supplying end consumers, and producers supplying longer food chains, our research shows that the 'gap' between producers supplying consumers directly emphasise about their produce, and the attributes that consumers expect to be associated with organic food, begins to narrow (See Figure 2).

## Figure 2: Attributes of organic produce emphasised by farmers engaging in direct sales and consumer expectations



In terms of the contact and dialogue that exists between consumers and producers, feedback to producers is very common, reported in over 85% of cases, and often face-to-face for those with a local orientation. Those with a national orientation are more likely than the others to receive feedback via the internet, while feedback via formal customer surveys is uncommon for all respondents. Overall, the survey recorded over 60 instances of farmers making changes following feedback from customers either directly or via intermediaries such as supermarkets. The impact of feedback included: changes to approaches to packaging, as well as more substantive changes such as changing the product focus of the enterprise and the breed of livestock to improve meat quality.

#### 5.4 *Continuity of supply and adding value*

The survey data reveals that a large minority of the sample (39.5%) reported experiencing problems with continuity of supply due to seasonality. This was particularly marked amongst producers with a local orientation, with 55.8% reporting experiencing problems ensuring continuity of supply, compared to 30.1% and 28.8% of those with regional and national market orientations, respectively. Of those reporting experiencing continuity of supply problems due to seasonality issues, farmers with a local market orientation are the most likely to try to provide an alternative – 31.8% compared to 24.1% of those with a regional orientation and 26.5% of those with a national market orientation.

A large minority of farms (28.7%) also add value to their output through processing, retailing, packaging or distribution of their produce. While most of these farms (48.9%) only have one value adding activity, 25.9% have three or more. Furthermore, farmers that add value to their produce have a more diverse marketing approach to selling their organic produce and are typically more local in market focus. However, farm type and farm size are also factors that influence value adding activities. For instance, horticultural and mixed farms are much more likely to incorporate some form of processing, packaging, retailing and distribution activity on their farm, accounting for 62.0% of adding value activity, while farms that are over 200ha with value adding activity are statistically significantly associated with serving the national market. This would suggest that scale in farm size and operation might be a factor in *where* value added production is marketed.

#### 6. Organic food chains

This section considers the complex webs of linkages that organic producers are part of, both up and downstream of the farm business. It is based on interviews with 61 organic farmers in three study areas: south-west Wales, south-east England (Sussex) and south-west England (Devon, Somerset and Gloucestershire).

#### 6.1 Organic marketing channels

A detailed analysis of the sampled organic businesses demonstrated that different and complex marketing arrangements were used to sell produce, in what were often quite individualised marketing chains. In confirmation of the results of the postal survey of producers it was found that some organic commodity producers sold their raw products directly to supermarkets, processors and organic cooperatives such as OMSCo (Organic Milk Suppliers Cooperative) and OLMC (Organic Livestock Marketing Cooperative) and were not trying to either add value and/or sell their produce locally. A few larger-scale organic producers had been approached, either directly by supermarkets or intermediary companies, to supply them with organic produce. In contrast, many smaller organic growers (with notable exceptions) were attempting to produce for the local economy and to sell their produce either directly to the final consumer (via farm gate sales, farm shops, box schemes and farmers' markets) or to independent retailers, a range of catering establishments and other local farmers.

- An *index of marketing concentration* was developed to examine the complexity of marketing arrangements within and between the three study areas and the role of place in determining the dominant types of marketing. Overall this process revealed a generally high level of concentration in the use of the different distribution channels. Nearly 1/3 of the 61 farms sold produce through just one distribution channel. Like the producer survey, it was marketing cooperatives, direct marketing and abattoir/processors that were the most typical channels for this sample: marketing cooperatives accounting for a high proportion of the overall index in south-west Wales, but much less in Dorset, Somerset and Devon and, especially, in Sussex where direct marketing to local consumers was the dominant approach. However, considerable variation in the use of specific and different combinations of marketing channels existed in each study area.
- Alongside this, an *index of geographical dispersion* was developed to indicate where organic produce was sold. This index demonstrated that farm businesses placed considerable reliance upon selling organic produce locally and nationally: 42% of produce was sold within 30 minutes of the farm; 42% sold to markets more than 1 hours travelling distance. Furthermore, a picture emerged whereby greater

use was made of 'alternative'/direct marketing channels in Sussex to sell a significant proportion of organic produce locally, whereas in Dorset, Devon and Somerset and south-west Wales marketing cooperatives and/or processors dominated as more produce was sold regionally and, especially, nationally.

The face-to-face interviews confirmed the finding of the postal survey that some producers originally committed to different forms of direct marketing were now struggling in the face of competition from the large scale 'alternative' forms of direct marketing such as Riverford and Abel and Cole. The rise and power of these 'alternative' businesses further contests straightforward divisions between 'commodity' vs. 'alternative' markets. In some cases, the analysis actually revealed a retrenchment away from some forms of direct marketing and a tendency to orientate towards certain types of marketing channel. Similar findings emerged in terms of adding value. While there were examples of adding value in each study area, it was often seen as involving much more work; a number of respondents simply did not have the time and/or capacity to consider adding value to their produce.

In Figure 3a an example of whole chain analyses of marketing concentration and geographic dispersion is presented for an organic dairy business. Examples of this analysis for other organic sectors are detailed in the full technical report to this study.

#### 6.2 Organic inputs

Although there was a desire by a majority of the 61 farmers to either produce their own inputs and/or purchase them from local suppliers, many were forced to buy some of their primary inputs such as seed and feed from outside their own region and even from abroad. This 'problem' seemed particularly acute for organic livestock feed (especially proteins) and cereal/grass seeds and plants, but was also noticeable in some study areas for other inputs such as packaging, labels, bottles, boxes and polythene. Some organic producers did purchase inputs (in the form of organic and non-organic products) from other local organic businesses at certain times of the year, especially those who sold through direct marketing channels such as their own farm shop and/or box scheme. An important distinction needs to be made between intermediate input suppliers (e.g. agricultural merchants, wholesalers) and primary input suppliers (e.g. growers, primary manufacturers). Some businesses made use of local suppliers, but the product may have come from much further afield. The dearth of local primary organic input suppliers was particularly noticeable in Sussex.

This general analysis was further developed through the use of *an index of geographic dispersion* for input supply. Of the sampled farm businesses, 46% sourced most inputs locally, with 20% being sourced regionally and just over one-third (34%) coming from national or international sources. There were some notable differences between the study area however. Farms in Devon, Dorset and Somerset for instance, sourced 88% of inputs from within 60 minutes of the farm compared to just 56% for Sussex. Some producers were often forced to go beyond their local area and region to source more specialised inputs.

The input economy was also dynamic in that change in suppliers was quite common as producers "chased down" the best offers in order to counter generally spiralling input costs. In this case, there was decreasing use of local supplies, either because they were not available or because they were too expensive. Another response was to reduce dependence on 'bought in' inputs and to produce more requirements on the farm itself; good examples including home-grown cereals, lupins and increasing the red clover content of grass (to increase the protein content of their hay and silage). The rising cost

of, and difficulty in obtaining, feed was a major issue for livestock farmers in the three study areas. Overall, it became clear that producers in Sussex and south-west Wales were often forced to seek necessary primary inputs from sources at considerable distances from the farm. While producers in Sussex tended to act individually and differently from the frequent group-buying behaviour in south-west Wales, the outcome was virtually the same. Figure 3b presents an example of the whole chain in order to demonstrate different sourcing patterns for a mixed farm. Examples of this analysis for other organic sectors are detailed in the full technical report to this study.



#### Figure 3a: Marketing concentration and geographic dispersion

This example is of a relatively small (105 ha) totally organic dairy farm business in East Sussex. It is an instance of a hybridised whole chain making use of both national and local marketing channels. Here, 90% of the milk, in terms of volume, was sold to OMSCo; which was worth 42% of their sales. The business had recently started selling bottled raw milk through its own delivery round. As the farmer explained "that is about 10% of our milk but it is for a higher value. Instead of 34p per litre we get paid about 140p a litre"

The bottled milk was sold locally to 380 customers. A local farmers' market was used to

promote the sale of the milk and attract new customers. The business also sold veal (slaughtered and processed at a local certified abattoir) to customers and cross-bred calves to a local farmer. Indices of marketing concentration and geographic dispersion (outputs) of 0.43 and 0.51 respectively indicated fairly low levels of concentration. Significantly, nearly 60% was sold within 30 minutes distance of the farm, with the remainder being sold nationally.



## Figure 3b: Input sourcing patterns

This example of whole chain analysis is of a large (1133 ha) 300 years old mixed farm business, which had been certified organic for just five years. On its website, it was claimed that the farm is: "The only completely self-sustaining organic farm in Europe, which means that all our animals only ever eat food that has been organically grown on the estate". This indicates that the animal feed (from the farm) was actually mixed and milled by a company in Dorset (over one hour away) and that the bottles and plastic containers for milk were obtained from a supplier in Devon; likewise, vital minerals (based on seaweed) came from a company in Wiltshire.

Nevertheless, 97% of all inputs were purchased within one hour's travel time (local/regional) from the farm and outputs were also sold locally making this a geographically concentrated enterprise. As the manager suggested: "local is the key to everything for the future", but he acknowledged that "too many small companies are disappearing, meaning we have to go further afield – this needs to be reversed"

#### 7 Economic implications of organic farming

This research also examined some of the wider economic implications of organic farming. It did so by developing "Simple Value Chains" (SVCs) for different organic commodities; a process designed to capture some of the complexity of the marketing channels and the premiums that they command. It also considered the economic multiplier effects generated by the organic sector using a process of LM3 modelling. Both these approaches were preceded by a benchmarking exercise which characterised the organic sector, drawing on a subset<sup>4</sup> of 199 organic farms involved in the producer survey. The benchmarking analysis revealed that:

• In absolute terms, mixed farms have the greatest total area of organic land, with a mean of 255 ha compared to the average for all farms of 166 ha. In relative terms, cattle and sheep farms have a greater proportion of land in organic production; 95% compared to an average of 88% and just 39% in the case of horticultural farms. At the national level the area of organic land per farm in England is much greater, at an average of 185 ha, compared to 101 ha for Welsh organic farms;

<sup>&</sup>lt;sup>4</sup> This sub-group involved respondents providing answers to all survey questions, thus creating a fully comparable data set.

- Dairy farms sell nearly 800,000 litres of milk, arable farms sell 125 tonnes of cereals and 143 tonnes of vegetables, while specialist horticultural units produce slightly less vegetables and fruit, at 106 tonnes;
- Horticultural farms grow the highest value produce at £37,586 per ha (although the median is £4,234 per ha), while cattle and sheep farms are much lower at £415 per ha.
- Horticultural farms employ the greatest number of FTEs per ha (1.61), whereas arable farms are associated with much lower labour rates, at just 0.013 FTE per ha. Cattle and sheep farms, however, provide the lowest level of employment on organic farms at 0.011 FTEs per ha. At the same time, organic dairy farms employ more family members than any other farm sector in the survey, while horticulture employs the least. However, arable farms employ the highest number of non-family workers, closely followed by horticulture.
- Arable, poultry and dairy farms tend to rely on fewer marketing channels than mixed farms, reflecting the broader range of produce that mixed farms raise and grow. Dairy farms sell 63.0% of their produce, by value, through marketing co-operatives (equating to £874 per ha), while for horticultural farms 33.5% of the value of sales is from their own vegetable box schemes, grossing £8,031 per ha. Furthermore, horticultural farms are far more likely to sell direct to consumers, with 54.9% of sales, by value, occurring through such channels;
- Nearly 60% of the value of sales from farms under 25 ha are through direct marketing channels, particularly box schemes but also via farmers' markets and own shop sales. Furthermore, these farms have the highest density of FTEs per ha at 1.046 compared to 0.201 for all farms;
- In terms of sales, only 7.9% of the value of produce from welsh farms is sold through supermarkets compared to 21.6% in England. Greater differences occur between the English regions. For instance, in the Eastern region only 46.0% of the land on farms in the sample is registered organic compared to over 90% in the North East, North West, South West and the West Midlands. In terms of marketing channels and concentration, little difference exists between the regions with the exception that in the East Midlands and the Eastern region the majority of sales are through packhouses. Finally, while marketing concentration for the North East is 0.63, suggesting a more diverse marketing pattern, many regions such as the South East (0.76), South West (0.77) and North West (0.72) lie close to the English average (0.75).

Having established benchmark values for a subsample of farms, this analysis was used to develop *Simple Value Chains* for different types of organic enterprise. These chains detail volumes produced and sold through particular marketing channels, unit prices for cattle sales, lambs, milk, cereal and horticultural produce for each channel, and the services that farmers engage with in operating their business. Figure 4 includes examples from two of these chains – organic lamb and organic horticulture. Further details of these examples as well as SVCs for organic cereals, milk, vegetable and fruit enterprises, are provided in the full technical report.

The *LM3 modelling exercise* allowed estimates of the local direct, indirect and induced impacts of organic farming on rural incomes and employment to be assessed and comparisons to be drawn between the potential multiplier effects of organic farms oriented towards local markets and those orientated more towards national markets.

LM3 models are an *indicator* of economic impact, and it is widely acknowledged that there is the potential for inaccuracy at various stages of their estimation. Details of how these models were tested and why a margin of error should be assigned to them are again provided in the full technical report. Nonetheless, as a result of this process two types of model were specified: 'aggregate' models which used total farm sales as direct effects and 'rural development' models which factored in only income from outside the local economy as direct effects.

- Results from the *aggregate models* indicate that, for every £1 of income, organic farms in England and Wales have the ability to generate between 66p and 97p through additional indirect and induced effects within a 30 minute travel time of the farm, and between £1.13 and £1.62 within a 60 minute travel time. Similarly, for every FTE job created on organic farms, between 0.28 and 0.35 additional FTEs and between 0.36 and 0.46 additional FTEs will be created through indirect and induced effects within 30 minutes and 60 minutes of the farm respectively. Employment multipliers are fairly constant across the three regions with the exception of the 60 minute employment multiplier for the South West, which is up to 1.57 compared to a mean of up to 1.46 for England and Wales as a whole. This reflects the fact that expenditure on goods and services by suppliers is considerably more self-contained in the 60 minute boundary compared to that in the 30 minute.
- Results from the *rural development models* indicate that, for England and Wales as a whole, the organic sector generates a total of up to £515.6m and up to 6,248 FTE jobs through direct, indirect and induced effects when externally derived (or export) income is considered within a 30 minute travel time of the farm. As a driver of rural development the organic farming sector appears to be fairly efficient at obtaining external income through non-local marketing and generating further income through local sourcing and employment. Compared to the other two regions, organic farms in the South West are more tied to markets in the 60 minute travel time than they are in the 30 minute boundary. Marketing to wholesalers and processors, which account for around half of all sales receipts across the sample, was found to be largely export orientated, with around half of all income derived from national markets outside the 60 minute zone. They therefore account for a fairly high proportion of income and employment effects generated in the local economy.

#### 8 Organic futures

This section considers the future of the organic sector in England and Wales. It draws on all empirical strands of the research to identify behavioural intentions of both consumers and producers, identify a number of concerns revealed by organic producers, and point to an underlying optimism that surrounds the long term development of this sector.

#### 8.1 Consumer intentions regarding organic food purchases

Participants in the consumer surveys were asked about their intentions regarding the purchase of organic food in the near future. Of these 55.4% expected to increase the amount of organic food that they buy, while 42.7% expected to make no changes, and only 1.9% expected to reduce the amount that they buy. Even though many respondents can be regarded as committed organic consumers, these results suggest considerable brand loyalty.

For organic box schemes, over half of the customers anticipated increasing the amount of organic food that they buy, rising to 61.5% of respondents in some instances. In

terms of our four clusters, 60.8% of organic *purists* expect to increase the amount of organic food that they buy, compared to 53.1% of organic *occasionalists*. *Occasionalists* were the most likely to be planning to make no change to the amount of organic food that they buy.

#### Figure 4: Simple Value Chains

#### Example 1: Organic vegetables and fruit

Unit prices have been calculated for four marketing channels that are direct to end consumers and nine that are indirect. Ideally individual value chains are needed for each separate crop, given the range of different vegetables and fruits sold (i.e. from apples to herbs to salads to cauliflowers). Therefore, the unit prices reflected in Figure 7.6 are likely to reflect to a greater or lesser extent differences between particular crops that are sold via particular channels.

In total 4,573 tonnes of vegetables were sold, generating an aggregate revenue of approximately £13.7million. It is interesting to note the difference in the marketing channels





Some consumers indicated that they would make cuts elsewhere in order to maintain spending on organic food. Factors such as concern over chemical residues on vegetables and fruit (cited by 92.4% of respondents), genetically modified organisms in food (84.1%), support for high animal welfare standards (87.4%), support for British farmers (89.6%), buying more vegetables and fruit in season (92.6%), and reducing food miles (86.1%) were all influencing decisions to increase the amount of organic food purchased.

Few consumers responding to the survey (31 individuals or just under 2%) said that they intended to reduce the amount of organic food that they buy. In contrast to current expectations regarding the price of organic food, those anticipating a reduction in their organic food purchases appear quite strongly motivated by a mixture of price and income issues. For instance, 64.3% of those intending to reduce consumption agreed or agreed strongly that they could buy non-organic food for less, and 59.2% agreed or agreed strongly that they would have less income in the future.

#### 8.2 Organic producer intentions

Only 3.6% of farmers surveyed indicated that they planned to leave organic farming in the near future - a view motivated by rising input prices and reduced producer prices, while over half (56.8%) intended to continue in organic production as long as they can continue to make a profit. In both cases, any move from organic farming would lead to a return to non-organic production in 44.7% of cases and semi-retirement in 26.4%. A large minority (20.4%) did not know what they would do.

Importantly, the area of land farmed by those intending to leave organic farming either immediately or in the next five years was only 1.3% of the total area covered by the survey, but the majority of land (69.6%) is farmed by those that will *only* farm organically if they can make a profit. This suggests that most land is not likely to move out of organic registration in the very short term. Just under 40% of the sample reported that they would only ever farm organically.

For many of those planning to continue to farm organically, the future will be characterised by a degree of dynamism. Indeed, there is a general trend towards increasing the area farmed (close to 30% of the respondents to the producer postal survey expressed the intention of expanding the area that they farm over the coming years), adding more marketing channels, increasing on-farm processing and, probably as a consequence, increasing labour. Although 35.2% of the sample do not expect their sales orientation to change over the coming five years, some hoped to increase their sales at the farm gate, in farm shops, to local butchers and wholesale to local catering establishments and retail outlets; this was often at the expense of farmers' markets, which did not figure in the future plans of many organic producers. Others respondents indicated that they are attempting to survive by selling organic produce into the conventional market.

#### 8.3 Organic producers – key concerns

The study revealed a number of recurring concerns regarding the viability of the sector as a whole and place of individual producers within it. Most notably these included:

- The escalating cost and availability of primary organic inputs such as feed and seed. Not only were these inputs often not available locally, but the necessary proteins/soya needed by organic livestock were in short supply both nationally and internationally. The rapidly rising cost of fuel and electricity was also of concern and a situation had been reached where the cost of inputs was reducing the significance of any premium prices paid for organic produce; this was especially the case at a time of rising conventional food prices. It was not surprising, therefore, that a number of producers mentioned the possibility of reducing off-farm inputs through growing their own feedstuffs, for example. This was seen as one way of increasing the 'sustainability' of the farm, and was often part of a general strategy of 'belt tightening' that has served many farmers so well in the past.
- Problems with direct marketing and/or adding value activities including the appropriation of the box scheme concept by supermarket chains, and the difficulty of adding value locally in regions with limited demand for organic food and a shortage of processing capacity. For some producers, therefore, the future seemed to be about producing more for the main organic commodity markets, with a national rather than local sphere of influence.
- Low availability and high cost of land for rental a problem expressed most notably by those located in Sussex. It was often claimed that the cost of land for rental was escalating in this area and this was a genuine concern for some of the smaller farmers, because they were easily 'outbid' by large-scale organic growers.
- Concern amongst some respondents that organic farming should remain a niche market thus protecting its market premium and with it, the ability to kept small farms and families on the land. However, some producers felt that the only way forward was to expand and work with large-scale, national cooperatives, processors and retailers
- Concern regarding the regulation of organic farming there was a perception that certification bodies, especially the Soil Association, were expensive and in competition with each other. Many complained that organic production was 'bureaucratic and over-regulated', and that standards 'are tough' and 'tightening all the time'. Allied to this others commented that, with the growing number of certifying bodies, there was a danger that organic standards would become diluted.

• Perceptions that the government held a negative attitude towards the industry. Comments such as: 'the government is not interested', 'the government should stop listening to the Soil Association, who is just empire building' and 'there is no real policy for the future of organic farming', seemed to represent the current view of the government's attitude towards organic farming.

Notwithstanding these worries and concerns regarding adaptation to changing market, regulatory and economic conditions, a number of farmers expressed optimism in their ability to withstand the worst of the economic downturn and to come out the other side still producing organic food:

#### 9 Conclusions and implications

This research has revealed a complex and multi-dimensional organic sector with large differences in terms of the scale of production and how it is marketed, in the size and make-up of businesses and the outlook and market orientation of operators, as well as a highly committed consumer base which emerges from this study as a distinctly well educated but ethnically monolithic group.

#### 9.1 Characteristics of Organic Production

Compared to other sectors in UK agriculture, organic production is still small and, as this research has demonstrated, it is also geographically very unevenly distributed, with much larger concentrations in south-west England and in south-west Wales than elsewhere. The producer survey carried out for this study shows that, proportionally, twice the area of land in Wales is in conversion compared with England and points to significant variations within England itself.

The organic sector is bifurcated in terms production, with the top 10% of the largest farms in the sample accounting for over half of sales and half of all full time staff employed. These businesses are more orientated towards national markets, tend to be engaged in the production of bulk commodities and hence more likely to be integrated in longer supply chains. Producers in the East and West Midlands and in the North East are more likely be orientated towards national markets than elsewhere and to be operating cereals and dairy enterprises. The large number of smaller, more locally orientated producers account for a much smaller proportion of total organic sales (just under 14%), but sell most of their output through local marketing routes such as farm shops, farmers' markets and cooperative ventures. They also tend to be more concerned with the 'organicness' of their producers consumers appear to think they are buying from when they purchase organic produce, either in the supermarket, through direct sales or via box schemes.

## 9.2 Characteristics of organic consumers and patterns of organic consumption and non consumption

Consumers of organic products surveyed for this study expressed strong health and environmental reasons for buying organic, which translates into a concern with the freshness of the products themselves and an expectation by some that they are (should be) locally produced. Our research further suggests that organic consumers can usefully be distinguished into four key types:

- *Purists* deeply committed organic consumers concerned with diet, what their food contains and the trust they can place in the organic brand;
- *Localists* prioritise connecting with local suppliers and the land;

- *Cautionists* emphasise the need to have trust in the source and production system underpinning their food choices;
- *Occasionalists ad-hoc* purchasers of organic food who are agnostic on questions of provenance and brand purity compared to those who regularly buy.

Those purchasing organic food are relatively price insensitive and the majority expect to continue to consume organic food in future. They also display strong brand loyalty. This implies that there may be a floor to any decline in organic sales. However, those who do not purchase organic food are price sensitive, suggesting it could be difficult to bring large numbers of 'organic virgins' into the market within a short period.

#### 9.3 The organic sector and rural development

Policy interest in the wider rural development contribution that organics can make reflects an awareness of the role of so-called 'alternative food producers' in sustaining the rural economy. However, our research suggests that as an economic activity and type of land use organic farming does not currently offer policymakers a very broad platform from which to launch future rural development policies. The small extent of the organics sector (both in terms of producers and the networks of processors and retailers associated with them) means that as a system of farming it is currently unlikely to be making a large contribution to employment, income or wealth in absolute terms and is geographically uneven.

Nevertheless, organic production that involves large numbers of small, locally embedded producers, is likely to be beneficial to rural economies. As business people, organic producers are more likely to be willing to diversify their operations and enter into innovative marketing arrangements in ways which not only generate more employment overall but also a greater proportion of non-family FTEs on their farms. In particular, our study identified a group of highly committed, typically small scale and locally orientated, organic producers who manage more diverse range of marketing channels compared to those with a more national and regional market focus. However, the national orientation of larger organic operators engaged in bulk commodity production enables them to draw income into the rural economy through their marketing to wholesalers and processors. This accounts for much of the estimated £515 million in income and the 6,248 FTE jobs the organic sector is able to generate annually. Indeed we estimate that around half of all income is derived from national markets outside the 60 minute zone.

In addition to these key conclusions the consultation with policy stakeholders revealed that:

- The organic sector is thought to demonstrate a model of small-scale, locally embedded production which needs to be nurtured, regardless of whether the production methods themselves are organic;
- Future support for organic sector itself should be further incentivised through enrolment into generic agri-environmental schemes rather than organic aid measures;
- Additional funding streams could be levered into the organic sector through the rural development programme for England and its successor, but a venture grant scheme may need to brokered in order to facilitate business development;
- There is perceived need for better, integrated of systems of advice, training and application systems for financial support to assist those embarking on conversion as

well as development of local initiatives to link up processors, retailers and consumers;

- The setting and control of organic standards was key to the long term expansion of the domestic sector and stakeholders believed that, in an international context, the uk accreditation service had an important role to play in advising on organic standards;
- The link between organic consumption and the government's healthy eating agenda needs to be further exploited and as does increased public procurement of organic food in schools, hospitals and through other forms of public catering.

#### 9.4 Conclusions

The research on which this and the full technical report is based is arguably one of the most integrated studies of organic consumption, production and marketing conducted to date. It throws new light on the nature of organic consumption, underlining both the ongoing commitment of the majority of committed organic consumers and the gap in perceptions, degrees of 'brand trust' and price sensitivity between this group and the majority of consumers who rarely or never buy organic. While this degree of commitment suggests that recent declines in organic consumption may not be sustained and will soon hit a floor, this finding also points to difficulties, particularly in a time of recession, in enrolling new consumers into organic networks, particularly via the direct marketing channels that the smaller producers are more likely to depend on. This group of producers, locally embedded and linked to consumers via short supply chains, fulfil the expectations of many organic consumers and exemplify the idea of alternative food producers. Managed by self selecting, entrepreneurial farmers, these organic producers make a valuable contribution towards employment and income generation within the local rural economy. As our broader analysis of food chains and multiplier effects across the regional and national rural economy shows, however, it is the large scale producers, concerned with the production of bulk commodities and integrated into long supply chains, that inevitably account for the main rural employment and income benefits of the organic sector, if measured in aggregate terms. While there is a good case to be made for the rural development benefits of organic farming, it is important to recognise these scale effects and their geographically uneven distribution in any policy assessment.