The Feasibility of Local Sustainable Food Sourcing by Supermarkets;

The Scope for Regional Producer Networks

Report for The Countryside Agency

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Executive Summary

The research contained in this report forms the pre-pilot stage for a "BioRegional Local Food Network" scheme with national retailers, with the final goal of bringing local food into the mainstream of national retail. Specifically this report is aimed at building the background knowledge which will allow organisations such as The Countryside Agency and the World Wide Fund for Nature to approach retailers with a viable scheme.

A review of supermarket schemes to promote local sourcing shows a rise in activity since the last research by BioRegional in 1999 in particular by Somerfield and Tesco. There was increasing interest in promoting local food by the most of the other supermarkets contacted.

Research into the potential for regional producer networks shows the concept to be applicable for a range of fresh produce, and that supermarket demand can drive production to this sort of model. Producers will adapt to meet demand, as they have adapted to meet recent demands for rationalisation. Whereas there is little environmental benefit in terms of reduced CO_2 emissions from secondary distribution (supermarket retail distribution centre to store), major savings can be made from primary distribution (producer to retail distribution centre). The example of Kentish Gardens shows that significant transport savings can be achieved and these become more important as transport and congestion costs increase.

An overview of eco-labelling schemes is given and it is recommended the environmental criteria within well established and recognised certification schemes such as Assured Produce and Integrated Crop Management are strengthened.

To incentivise buyers at supermarkets to stock more local produce, three mechanisms are proposed. These include a Transport Road Miles Index, target setting on the basis of turnover in local products and a "Local Food Retailer of the Year" award.

Initial comments on communications are given.

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Background - environmental, social and economic issues

Local sourcing of products can act as a powerful tool to promote sustainable development. When combined with sustainable land-use, local sourcing offers:

- a way to reduce transport miles and our contribution to global warming and local pollution, as well as decreasing the need for road building
- a market mechanism to support local sustainable industries and land-use, promoting, local employment
- a mechanism to put people back in touch with their local environments and foster understanding and accountability
- a simple and easily understandable message for the general public on sustainability and "getting lorries off our roads"
- a way to realise the objectives of Local Agenda 21.

Local sourcing supports stronger regional economies, which are economically dependent on a variety of industries, and therefore have greater stability in the globalised market-place. This arguably has societal benefits. Areas dependent on few economic activities – such as West Cumbria's dependence on the nuclear industry, or the potential loss of 19,000 jobs dependent on car manufacturing in the West Midlands recently estimated by the Department of Trade and Industry – leave a regional economy potentially weaker. Supporting local, environmentally-responsible agricultural producers not only leads to a varied and strengthened local economy but also contributes to a varied landscape of value to wildlife. For the rural economy, the viability of rural towns and villages are increased as the market access for smaller producers are potentially favoured.

Food freight transport in the UK is increasing, accounting for a third of the increase in freight transport (Sustain – Food Miles Report). This causes environmental problems of increasing CO_2 emissions, contributing to global climate disruption, as well as localised pollution and traffic congestion. This overall increase in food transport has come about in an industry which is always seeking further efficiencies.
Local sourcing has the potential to cut the financial costs of road haulage, which are a considerable cost to producers and retailers. Kentish Gardens (described in later this report), a soft fruit producer marketing co-op, have introduced a programme to regionalise their distribution, and have reduced haulage costs by approximately 10%. Reductions in food transport will lead to a reduction in CO_2 emissions, and therefore reduce our contribution to global climate disruption. Local air pollution and traffic congestion would also be reduced.

There is also evidence that "Local products" are increasingly popular with consumers, as shown by the rapid rise in Farmers' Markets to more than 200 since 1998 (Soil Association). Anecdotal evidence suggests that consumers in rural areas and market towns are particularly keen to support their local producers.

BioRegional already supplies national retailers with Local Charcoal and Local Firewood. Although the supply chain for local food products raises a different set of challenges, BioRegional's Local Food Networks report identified in outline a workable and cost-effective mechanism to allow supply of local food products on a national basis through local supplier networks. The Local Food Networks report was prepared with input from suppliers and retailers and technical issues were found not to be barrier to implementation.

Given the environmental, social and public relations benefits which can accrue from local sourcing, and that it is technically feasible, why aren't more local products being bought and sold? The main reasons are:

- lack of established, cost-effective mechanisms for getting local food into national retail
- inertia within purchasing departments of large organisations & fear of doing something different; and
- locally produced products are often not the cheapest products purchasers can buy.

In order to persuade supermarket chains to stock more local produce, and to overcome the issues above any local sourcing initiative will require commitment from the highest level in the supermarket hierarchy - it has to become incorporated into the supermarket's corporate strategy and gain CEO commitment.

Food distribution in the UK – the current situation

There has been increasing rationalisation of the food distribution sector driven by supermarket demand to reduce administrative costs (their wish to move to fewer numbers of larger producers), exploit economies of scale and reduce transportation costs. In many cases this has delivered cheaper food to the consumer, but UK farmers, particularly smaller ones, have lost out. There have external social and environmental costs.

Currently supermarkets represent around 70% of the food market. The supermarket food distribution model is based on Retail Distribution Centres (RDCs), regionally based depots which deliver to the stores in their region on a daily basis. Food suppliers deliver orders to the regional RDCs. In the case of packaged goods such as tins, the manufacturer will deliver to each of the RDCs in the country. Producers of fresh food may in some cases deliver just to their nearest RDC – Asda supermarkets source some of their meat products regionally in this way, with dedicated farmers who supply the RDC in their region.

In general, however most producers deliver to processors of some nature, usually a packhouse in the case of fresh produce (also known as a pre-packer). The packhouse or pre-packer usually has the roles of washing, sorting and grading the produce, managing quality control and traceability, as well as packing and distribution. The food will then be delivered from the packhouse to the RDCs nationwide. In most cases the packhouse will be operated by a producer marketing company, often owned by the producer-members.

The sector is moving increasingly to a shifting in responsibilities towards the supermarket's main suppliers, the producer marketing companies. Supermarkets reduce their administration load by minimising the number of suppliers, and the trend is to give a key supplier responsibility for "category management" in a particular type of produce, where the supplier is contracted to source and supply the supermarkets need. The producer marketing companies therefore source from abroad when outside their own members' season, and create systems to respond to supermarkets' needs in terms of quality control or standards.

In the majority of cases the RDCs are regionally-based, and the delivery vehicles will usually be fully utilised, which means the transport efficiency from the RDC to store is high, and there is probably little room for reducing transport in this area.

Transport of food from the packhouse to the RDC, and in some cases from the producer to the packhouse, are areas to which the increase in road freight can be partly attributed, and areas in which there is potential for reduction in transport by moving to a regional producer network structure. There are already examples within this sector of good practice in terms of reducing transport – for example producer marketing companies running packhouses in different regions and delivering regionally. However there is often a situation in place which could be greatly improved in terms of reducing transport – for example a single packhouse/ processing plant taking produce from across the whole country and then delivering to all the RDCs in the country.

Current Local Sourcing Initiatives by Supermarkets

There is far more movement and interest in this issue by the retailers at the present time than there was a year ago, and some – particularly Somerfield, Sainsbury and Tesco have started initiatives on local sourcing. Most of the details discussed with us were given in confidence although some will now be open knowledge.

Somerfield have two strands to their work on local and regionally sourced products: The Local Sourcing Programme and the Regional Sourcing Programme. Somerfield's Regional Sourcing Programme is very similar to the BioRegional Producer Network concepts in terms of a single firm acting as a point of contact to the supermarket and co-ordinating regional distribution from local producers.

Somerfield has rolled out an imaginative Regional Sourcing Programme throughout late 1999 and 2000 where a range of regional suppliers deliver through the nearby Retail Distribution Centre to the stores in that region. This was first established in the South West following a pilot with Tastes of the West, and has been rolled out in each area of the "Regional Speciality Food Groups" such as Tastes of the West, under the Food from Britain umbrella.

They have introduced a significant number – around 1,000 - new regional lines, from around 300 smaller producers. The producers are all members of the Regional Food Groups and are predominantly ambient temperature products with some chilled. The firm acting as the co-ordinator and single point of contact to Somerfield is Product Chain, a brokerage firm with a background in expanding trade of regional producers, particularly organic or environmental producers. Product Chain act as one supplier to Somerfield to enable them to take on a large number of new suppliers, and also guarantee payments to suppliers within 28 days, and handle orders and invoicing.

The programme is run by Elaine King at Somerfield, who set up each region by calling a meeting of regional suppliers (including those in the regional food group, e.g. Tastes of the West), store managers, and Product Chain. The products are sold in a display – usually end of aisle – titled "First Class Support for Local Producers" and incorporating the relevant logo of the regional food group. Chilled products or products in other parts of the store are identified with the same logo in some way. Somerfield have appointed "store champions" with incentives in each store to promote the range.

There have only been a few hurdles in the set-up of this scheme, of which the most concerning is that suppliers in at least one region – the South East – have been asked to supply three RDCs rather than one, one of which is significantly out of region at Ross-on-Wye. This may mean there is no real net reduction in road transport.

From July 1999 Somerfield has developed a Local Sourcing Programme. This involves direct delivery to an individual store of products which are particularly "local" to that store. In 75% of cases the stores themselves nominate a product which is well known in the area (for example Wallace of Dundee pies). In other cases companies approach the Local Sourcing Programme team, or they spot opportunities themselves, such as Halal meat.

Somerfield's vision statement includes "Somerfield into the neighbourhood", and they are running the Local Sourcing Programme in order to build relationships between local businesses and stores. Small suppliers are catered for as Somerfield chooses to fit into their delivery cycle to local towns – therefore receiving deliveries once a week rather than every day.

The Local Sourcing Programme now has 400 lines listed locally, from 46 new suppliers to Somerfield. These are predominantly in ambient grocery products. They have found that it is driving incremental sales and meeting customer needs. Sales of the local products grow week by week.

Sainsbury are increasingly turning their attention to local or regional sourcing, particularly to start with in Northern Ireland and Scotland. They have taken on regional speciality products such as sausages or ice-cream in some areas such as East Anglia or Kent, with availability limited to the region of origin. In most cases these new producers are “kitchen-style” operations and Sainsbury have been using existing competent suppliers to manage and foster relations with these smaller suppliers, which otherwise represent a lot more maintenance and management to the retailer. They see this as a way to manage a large increase in the supplier base, offer choice and help new supplier get started by equipping people with skills. Sainsbury have also been labelling produce in store by county of origin – for example leeks from Hampshire, potatoes from Derby, and carrots from Lincolnshire labelled in an Oxford store.

Tesco identify number of key areas of work each year, known as Food Plan Projects. One of six key priorities for next year is Local and Regional Sourcing, and a team headed by Judith Abrehart has been set up. This has come from the fact that over 50% of questions in their weekly customer question times are about local food. Tesco have been improving their regional and local sourcing of food gradually over the last 2-3 years – Judith Abrehart says that the days of Australian strawberries in summer, where British of the right quality are available, are already long gone. They have been running a scheme known as No.1 Locally which labels products in the cases where they happen to be from the local region. This has a good local community perception. However Judith Abrehart feels that Tesco has been inconsistent in the past, and has not been promoting local food to customers as well as it could.

Tesco’s Local and Regional Sourcing Food Plan Project will aim to label locally-sourced food clearly. They are going to look at all the products currently stocked by Tesco, especially those of local importance such as haggis. Tesco is keen to look at stocking important local brands where this has been missed, as previously it has been hard for their central office to respond to regional consumer preferences. Her example is that Scottish shoppers may prefer one brand of crisps over another. Tesco’s Local and Regional Sourcing initiative will involve building up a database of producers and growers. Already it appears that, where possible, all British salads and vegetables sold in their Kent stores in summer are locally-produced.

Waitrose is a regional supermarket based in the South East and Midlands, with two main Retail Distribution Centres (RDCs) – Bracknell, serving the south and west area of their range, and Milton Keynes, serving the mid and north area. John Foley, their Head of Fruit and Vegetables, says that the majority of suppliers from each these regions deliver to their nearest RDC, and therefore the products are reasonably local. They appreciate the advantages of creating a link between local produce and consumers.

Asda see themselves as working a great deal with local producers and British farmers, and claim to source the majority of their produce from Britain. Since January 1999 they have had a policy of sourcing a number of items (most meat, cooking apples etc) solely from Britain. Much of their meat products are regionally delivered from producers in the region.

Marks & Spencer have expressed a commitment to high quality, with geographical location of the source not being a consideration. However, a presentation to their trading department showed interest in local.

The authors were unable to contact **Safeway.**

The Concept of Regional Food Producer Networks

A Regional Food Producer Network involves a network of regionally-based producers co-ordinated or marketed by a single company, such as a producer co-op. The producer co-op acts as a single point of contact to the retailer, co-ordinating standards, quality control, packaging, invoicing and marketing. The producer co-op co-ordinates the regional distribution of produce to be labelled as Local or Regional food.

The key to ensuring the food is locally sourced and to reducing the road mileage is that the food must be produced and processed or packed within the region served by the retailer's Retail Distribution Centres (RDCs). Regional producer networks are a cost-effective way of allowing smaller producers access to national retailer markets and a way of reducing food transport with benefits to the countryside. They are a mechanism to minimise the administrative burden for supermarkets interested in stocking local produce and therefore offer a coherent way of promoting local produce. Supplying through a producer co-op/ network is an effective way for a smaller producer to supply national retailers, with the co-op/ network taking the burden of dealing with the buyers, quality standards and arranging distribution.

Current growing areas for fresh produce are in some cases not strictly defined by climatic or soil conditions but also by the legacy of infrastructure, such as large-scale onion drying sheds in East Anglia. For example, in the case of onions, a producer co-op based in East Anglia could take on new members growing onions to high environmental standards in other parts of the country, who could deliver locally/regionally. Therefore smaller producers, such as emerging organic onion growers, gain access to national retailer markets via the producer co-op/ network. Although there is growing interest in smaller speciality producers, the main overall trend in the food industry is currently continuing in the direction of fewer and larger businesses. However, by creating a regional producer network structure, avenues will remain open for smaller producers to supply regionally under the co-ordination of a producer co-op/ network. So for example this would be a more stable market development strategy to support small-scale organic onion producers, who might otherwise lose out to a large-scale organic producer setting up in East Anglia.

In the regional producer network model the producer co-op will source from producers around the UK, offering produce from each region to the nearest supermarket Retail Distribution Centre (RDC). This could cut distances travelled by some products from nationwide distances to as little as 35 miles across a region. There is potential that the producer co-op could work in partnership with the retailer to add this distribution to the retailer's backhauling initiatives, increasing financial viability for this sort of scheme in general and for smaller producers

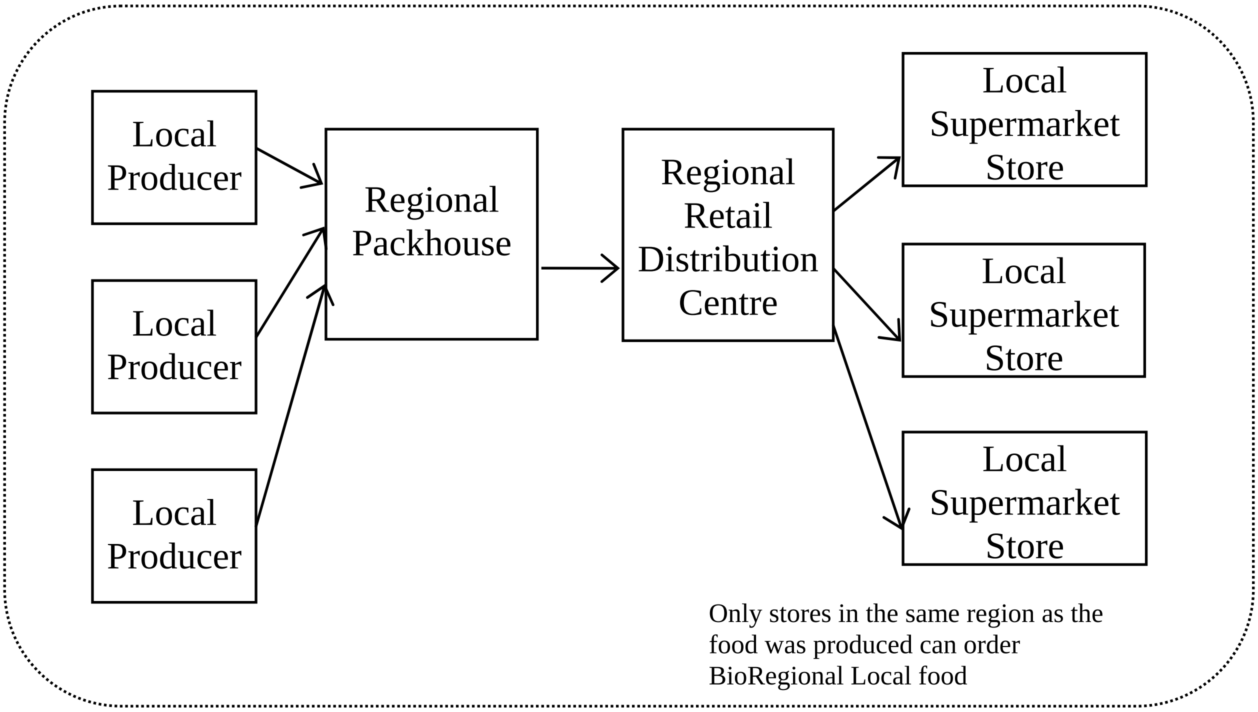
There are also advantages to regional producer networks in terms of minimising administrative burden of stocking local produce. Supermarkets tend to reduce rather than increase their number of suppliers, although in some recent cases new ways have been found by supermarkets to take on substantial numbers of new suppliers. Under a regional producer network arrangement, a producer co-op can respond to a supermarket's wishes to stock local produce by taking on new suppliers in different regions. This is a process that could be sustained over time.

Regional producer networks could form a framework on which the link between producer and consumer can be built, and countryside character issues communicated.

Some fresh produce marketing have a producer network structure in place. For example, Kentish Garden, a soft fruit (strawberries, raspberries, plums etc) producer co-op based in Kent have supplier members, some of which are organic, across the whole of the UK, and have recently introduced a system which allows them to offer produce on a regional basis to supermarkets. They are keen to continue this process, and if linked to a supermarket initiative to stock regional produce, would take on new suppliers where needed.

GMS are a brassica producer co-op based in West Country/ West Midlands, again with a mixture of conventional and organic producers. They are interested in the concept of moving to a regional producer network structure and would source from new suppliers where they do not already have coverage.

Diagrammatic representation of supply via a Regional Producer Network



Scope for Regional Producer Networks for specific produce

For a number of fresh produce categories, the current supply structure and scope for regional producer networks was investigated.

Top Fruit (Apples and Pears). Top fruit are mainly produced in the South East, particularly Kent, East Anglia, West Midlands, particularly Herefordshire, and South West. Most of the main producer marketing co-ops are regionally-based – for example a group of Kent producers, or a group of Herefordshire producers. Top fruit producers in general have been under economic pressure, and there is at least one case of a producer co-op being unable to sustain itself economically and merging with another co-op. In this particular case the 30 – 40 East Anglian members of Waveney Apple Growers Ltd now send all their fruit via East Kent Packers, using the packhouse in Kent.

Some producer co-ops such as Fruition Ltd source from members around the country. Fruition have 160-plus members and try to deliver regionally where possible, for example sending their East Anglian-produced fruit to East Anglian RDCs.

This is balanced with two general trends for top fruit and produce in general. Firstly most top fruit producer co-ops are now sourcing apples from abroad outside of their members' season. This is mainly driven by the supermarket retailers looking to their suppliers to become category managers and source the entire range of a particular product. As well as sourcing from foreign producers the producer co-ops also sometimes contract growers outside their member base, in other parts of the UK.

Secondly, the supermarkets are tending towards having a dedicated grower base within each producer co-op. An example is Waitrose's dedicated top fruit producers within Fruition: 2 in Warwickshire, 1 in Somerset, 3 in Kent and 2 in East Anglia. A dedicated grower base aids communication and understanding between supermarket and producer, as the farms will be visited by technical, buyer and Quality Control staff from the supermarket. However it may not always be good in terms of sourcing regionally as, for example, all of Waitrose's bramley apples from Fruition come from just one of the dedicated farms. Geographically there is a good spread of top fruit producing regions in the UK, and most of the producer co-ops either have members across the UK, or have started to source from or contract growers outside their area. From these points of view there would seem to be scope for a producer co-op to source and deliver top fruit regionally.

Producer co-ops currently using one packhouse for the whole country, such as East Kent Packers (Kent packhouse) or Wye Fruit Ltd (Ledbury packhouse) would have to make use of packhouses in other parts of the country in order to keep the transport within the RDC region. The scope for a regional producer network is currently less where a retailer has a small dedicated grower base, for example Waitrose's one Fruition bramley producer. Here a retailer would have to choose whether to maintain a small dedicated grower base or ask its producer co-ops to source from a regional network to the same standards.

The scope to source from smaller producers is high. For example, Fruition's grower members range from 20 acres to 500 acres, and all grow to Assured Produce standards.

Soft Fruit. One particular producer co-op, Kentish Garden, which handles 40% of the UK strawberry market, has 60-plus producer members across the UK and has, over the last couple of years, developed systems to provide retailers with a "regional offer". This means that they can match the week's available produce to the nearest RDCs and offer the supermarket an amount of soft fruit per RDC. When the supermarkets have taken up the regional offer, this has led to savings in transport, saving them approximately 10% of the cost. (see later).

The experience of Kentish Gardens shows that it is feasible to deliver soft fruit to RDCs on a regional basis.

Carrots. There are 12 main packer/distributors for carrots, based in Scotland, Nottingham/Lincolnshire, East Anglia and Lancashire. These firms, on the whole, source from growers around the country, rather than just from their region. However production is predominantly based in the East due to the stone-free sandy soils. Following an organo-phosphate insecticide crisis five years ago there was a wholesale move by carrot producers to new "clean" sites. Many took the opportunity to base themselves close to existing packhouses and distribution centres, which will help reduce transportation. Margins are tight at the moment for carrot-growers and the British Carrot Growers Association predicts that the future trend will be towards fewer and larger producers.

Carrots would be relatively well set up for regional producer networks with the distribution firms already sourcing from growers across the country. The proximity of many growers to the packhouses or distribution centres means that road haulage could be minimised to a greater extent than with other produce.

Tomatoes. Tomatoes are grown on the south coast, Isle of Wight, East Yorks, Lancashire, Midlands and Jersey. The main factor cited by growers in selecting these areas is good light levels. There are 8 main suppliers (both groups of growers or individual large growers) which represent 85% of the market. However in general these producer co-ops source from growers in their region and distribute from there to the whole country.

Although the growing areas of tomatoes are widespread enough for regional sourcing to be feasible in season, logistical changes would need to be made for a firm to source widely across the UK and use packhouses in different regions.

Onions. Onions are currently grown mainly in East Anglia due to sandy soils and an investment in storage facilities. However organic onion producers have appeared throughout the UK. Therefore BioRegional producer networks could operate effectively with organic onions, though it would require major infrastructure changes for conventionally produced onions.

Lettuce. Lettuce is grown in South England, East Anglia, Humberside and Lancashire. The sector is currently undergoing changes from regionally-based grower marketing co-ops to more of a category management situation where one supplier will take on sourcing, quality control and delivery, sourcing from other producer co-ops. Retailers are typically appointing three suppliers to cover a third of the country each. Consolidation centres are very important in lettuce distribution: from the packhouse the produce will be delivered to a consolidation centre where loads destined for the same RDC are combined, to ensure full lorry loads.

The very recent moves towards category management in this sector mean changes for producer co-ops to packing from a wider number of producers than their own members, and supplying orders from the category manager firms rather than the supermarket direct.

The producer co-ops in this sector have very recently undergone logistical changes. However there may be potential for regional producer networks from this stage, as typically retailers have appointed three producer co-ops to organise three areas of the country. Consolidation centres are central to current distribution and undoubtedly increase the efficiency of road haulage to RDCs. With good geographical coverage by growers the potential for BioRegional producer networks exists, but would need to be balanced with the recent logistical alterations reshaping the sector.

Brassicas. Cauliflower, brussel sprouts, cabbage and broccoli are grown mainly in Lincolnshire, Cornwall and Kent, with Cornwall used to extend the season of availability through the winter and spring months. There is no great overlap between production in Cornwall and in other parts of the country. There tends to be one packhouse for each producer co-op, delivering to the whole country, whether from Lincolnshire, Cornwall or Kent. Producer co-ops in this area are moving towards sourcing from Spain, France and Italy in addition, and some are taking on organic producers as well.

Currently the production and packing of brassicas is heavily based in single areas such as Lincolnshire (except for Cornwall during other months) and therefore producer co-ops would need to find new growers in other regions before a regional producer network could work. GMS, major brassica marketing company with a growing base in Herefordshire and Cornwall have indicated that if asked by a retailer they would be willing to source from producers in areas where they don't currently have growers, in order to have a regional network of producers. They could link up with marketing companies based in the other main brassica growing areas in Lincolnshire, Bedfordshire and East Scotland The willingness of producer co-ops to alter their operations and logistics is illustrated by the moves to sourcing from abroad and sourcing from new organic producers, and therefore potential could exist for taking on regional producers, if desired by the retailers.

Potatoes. Potatoes are mainly grown in East Anglia, Lincolnshire, Norfolk, Cambridgeshire, Hereford and earlies from Kent, Cornwall, Pembrokeshire and Scotland. Mainly this is due to the better quality land, but increasingly the large packers are based in these areas, and haulage costs are considerable, therefore there are lower costs if the producers are based close to the processors and packers.

Large distribution firms operate regional packhouses and depots themselves, for example MBM Potatoes operate regional depots in March (Cambridgeshire), Shrewsbury and Coventry; and sometimes use contractors with depots.

Potatoes are a good example of a crop which can be grown in various regions but in practice the growing areas are defined by the location of the existing infrastructure for processing and packing. However there are processors and packers in more than one area and therefore relatively good potential exists for the organisation of a regional producer network, particularly as this sector considers haulage costs to be considerable.

Legumes. Peas and beans, for example broad beans, runner beans, dwarf beans and garden peas are grown in Kent, Suffolk and Scotland. However the spread of production area reflects the timing, with Kent and Scotland seasons unlikely to overlap. A large proportion, 80-85% for one producer co-op, of the market is imported, air freighted from Africa and South America.

The harvest moves from region to region through the season and therefore there might be some problems in sourcing regionally. If UK production as a whole could be increased there would be real savings in transport in comparison to imported air-freighted produce.

Summary. There is good regional spread of production and producer co-ops with good potential to work on regional packing and distribution with the following fresh produce:

- Carrots
- Soft Fruit
- Top Fruit
- Organic Onions.

There good regional spread of production but packhouses and facilities, or marketing coops are concentrated in single area(s) in the case of the following:

- Potatoes
- Tomatoes
- Lettuce

With the following, main production is currently concentrated in limited area(s) of UK:

- Brassicas
- Legumes
- Conventionally grown onions

Conclusions on Regional Producer Networks and Recommendations.

The model of Regional Producer Networks is a generally feasible one, where a producer co-op would source produce from a number of regions in the UK, and organise packing and delivery to the nearest RDC, all within the same region.

The producer co-op would act as a single point of contact to the retailer, thus retaining the efficiency of administration and co-ordination at that point. Producer co-ops and other produce distribution firms have the flexibility to alter their operations and logistics in order to meet the requirements of the supermarkets. If a retailer was to ask its key producer co-ops to source and supply on a regional basis the motivation would be there to solve the logistics and source new producers where necessary.

It is recognised that not all of the retailer's produce would necessarily be regionally supplied, where production is very heavily based in a single area that area would continue to also supply all the RDCs where necessary.

The main logistical changes which would be necessary to a greater or lesser degree are:

1. organising regional packing and processing of regional produce
2. sourcing new producers in some regions

Most producer co-ops run either one main packhouse through which all their produce passes, or run a number of packhouses in regions, some on the producer's farms. Some retailers retain control of processing or packing plants, usually one for a particular type of produce. Packing or processing produce regionally is key to the concept of a regional producer networks for fresh produce. The main occurrence of excessive transport of food within the UK is when produce from any region of the UK is transported to a single packhouse serving the whole country, and from there out again to all RDCs.

Producer co-ops already running a number of packhouses will be better placed to adapt to a regional producer network approach. However it may not be necessary for any new packhouses to need to be built, particularly as some packing facilities are under-utilised for much of the year. Packhouses in different regions of the country could be contracted to pack produce on behalf of the producer co-op, to the particular standards set by the retailer and producer co-op. In this way the transport of a stream of produce would be regionalised, bringing the benefits of local sourcing such as a reduction in road haulage and CO_2 emissions, support for local producers and a stronger local economy.

Where necessary, new producers would need to be sourced, meeting the usual standards of the retailers, in order to provide a regional network of producers. This gives a good opportunity to source from and therefore support smaller and/or more environmentally-responsible producers. Some of the producer co-ops we have spoken to have indicated that sourcing and taking on new producers would be feasible, and this has been illustrated by the way some have recently taken on new organic producers, or begun to source from abroad.

Ideally a move to a regional producer network structure would be combined with a move towards sourcing all "regional" produce from highly environmentally-responsible producers, perhaps by identifying a suitable labelling scheme.

As producer co-ops and produce distribution firms are responsive to the needs of the retailers we recommend that the best way to introduce regional producer networks is for the retailers to ask its key suppliers to source, pack and deliver a regional range. This impetus from the retailers would be backed up by a strong communications campaign to the consumer, identifying the regional/local produce and the benefits of choosing produce from that range.

Benefits of local food sourcing

There are environmental and social benefits to local sourcing - though the environmental ones are easier to quantify. Indeed the main supermarkets are committed to varying degrees to environmental policies. Only very recently are some introducing commitments to support local and/or farming communities. In general environmental objectives are less contentious than social ones in the context of rural development. Consumer perceptions of UK farming are very mixed. Many feel that farmers in the UK remain the last subsidised industry and that there is no rational reason for this and the Common Agricultural Policy has a poor public image. For these reasons, if a good working relationship with supermarkets is to be formed, it may be easier to focus on environmental improvement as a mainstay, along with any evidence for consumer preference for "local" and maximising PR opportunities when they arise.

Available figures on the energy savings of local transport of food are very variable. However there is no doubt that transport is an important environmental factor. Department of the Environment figures show that in 1990 road transport accounted for 21% of UK CO_2 emissions (lorries account for 23% of this) and emissions from the transport sector are predicted to increase by 62% by 2020, to account for 28% of CO_2 emissions. The Royal Commission on Environmental Pollution in 1993 predicted that the transport sector would therefore account for the whole of the net increase projected in UK carbon dioxide emission between 1970 and 2020. This can be seen in the table below, where road transport is the only sector consistently increasing its CO_2 emissions between 1990 and 2010.

Energy-related carbon dioxide emissions, UK 1990-2010

End-use sector	Emissions in year (million tonnes of CO_2)		
	1990	2000	2010
Domestic	41.7	36.6	36.5
Public and commercial	23.0	20.2	22.5
Industry	48.0	44.2	47.6
Road transport	33.2	37.8	43.5
Other	12.4	10.9	11.7
TOTAL	158.3	149.7	161.8

Domestic Equipment and Carbon Dioxide Emissions, Environmental Change Unit, University of Oxford 1997

Actions to reduce the transport of food within the UK, will play a part in reducing the CO_2 emissions from the road transport sector. Further research within a pilot scheme should identify the proportion of road transport represented by food freight, and the potential for reducing this by localising (or regionalising) food distribution.

The Food Miles Report, by the SAFE Alliance, now called Sustain, gives the following general figures for food transport, by mode of transport:

Energy use and Emissions for Different Modes of Freight Transport

Mode of Transport	Energy Consumption KJ / Tonne-km	**Carbon Dioxide emissions** g / Tonne-km
Rail	677	41
Water transport	423	30
Road	2890	207
Air	15839	1206

Source: The Food Miles Report, SAFE, 1994

For example, a crude calculation of the energy used to transport a tonne of apples from New Zealand to the UK would be:

Water transport = 228 kg CO_2 / Tonne

Therefore the energy used to import 55,000 tonnes of apples from New Zealand in 1993 resulted in
emissions of 12,540 tonnes CO_2.

For food transport within the UK supermarket lorries in 1998 travelled 44.85 million km/year with an average load of 12 Tonnes (*McKinnon and Woodburn, Heriot Watt Business School, Transport Policy 1.2 1994*). Therefore total secondary distribution (from RDC to store) in 1998 can be estimated as 538.2 million Tonne-kms, releasing 111,407 Tonnes of CO_2/ year. While this represents about 0.07% of the UK's annual CO_2 emissions, and 3% of the CO_2 emissions from road transport, it omits the transport of food in primary distribution (from producer, via packhouses and processors, to RDC). To quote McKinnon and Woodburn, "no data were available for primary distribution", which is not as regionalised as secondary distribution. To assess the impact of primary distribution, the case study of Kentish Gardens has been used.

Kentish Gardens (KG) are a marketing organisations specialising in sales of UK strawberries to national producers. They currently market strawberries from 64 producers. In 1999 their annual turnover was £ 25m from approximately 6,700 tonnes of fruit, of which strawberries accounted for 85%. By 2001, this had grown to an annual turnover of £50m from 16,000 tonnes of fruit, including 13,000 tonnes of strawberries (approximately 81%). Their smallest producers do about £20,000 in business with Kentish Gardens. The smallest producers come under the umbrella of neighbouring larger producers.

Most produce goes through an on-farm packhouse which is usually dedicated to strawberries in the height of the summer, but can pack other produce such as apples at other times of the year. KG have recently opened one corporate packhouse in Maidstone which receives produce from 7 Kent producers. All packhouses are chilled facilities (4^oC – 8^oC).

KG have a very efficient planning and logistical operation to ensure 100% deliveries to their customers which include the major UK supermarket chains. KG have introduced new software to ensure an improved service. At the height of the season they are able to let their customers know one week in advance what produce in coming on stream and in which areas of the country. They are then able to offer deliveries to depots (RDCs) of their customers - wherever possible delivering from the nearest producers. As strawberries in Kent come into season one month earlier than those in Scotland, at the start of the season they do transport strawberries from Kent to Scotland. KG prefer to keep transport distances to a minimum to maintain freshness as well as to reduce cost. Moreover, subject to the complexities of timings of strawberry availability in each region and demands from their customers, KG producers may end up transporting strawberries considerable distances. The fluidity of the scheme is essential for KG to maintain a reliable, on-tap supply which the big retailers demand.

The fluid supply structure means that although KG aim to supply from the nearest producer, this does not happen all of the time. Although they hold data on each delivery, it is not easy to ascertain the "tonne km" this involves. Most of the haulage is via haulage companies (such as Coolchain, a haulage firm dedicated to Sainsbury produce) which consolidate KG's loads with other produce. In a few cases, e.g. with Waitrose and Safeway, there have been some opportunities for back hauling. Out of season, as part of their category management role with some of the retailers, KG also import strawberries from countries such as Israel.

The effect of primary distribution on CO_2 emissions using Sustain's figures in the Food Miles Report, shows the effect of transporting strawberries. Kentish Gardens transport distances were used - Kent producer to Kent store (80 km by road); Kent producer to Scottish store (700 km by road), Israeli producer to Kent store (30 km by road in Israel, 3,800 km by air, 80 km by road in UK).

CO_2 emissions from the transport of 1 tonne of strawberries

The comparison between transporting food within the same county, as opposed to across the UK, shows the potential to reduce CO_2 emissions to 12% of their former value. The positive promotion of locally transported and sustainably produced food could help reduce the proportion of produce imported at a high cost to the environment, as shown by the high emissions of CO_2 from air freighting strawberries from Israel - a staggering 99.6% reduction in fossil fuel consumption.

To get some idea of KG's logistical improvements and "regional offer" to supermarkets, transport costs have been used (road miles are not recorded by KG, though if supermarkets demanded it, they would comply). KG charge their producers at a flat "pool rate" for transport (say "74p per tray"), pay all the transport costs, and provide a rebate to all producers if in retrospect costs are lower than anticipated.

KG believe that they have been reducing the road miles associated with their strawberries. This is reflected in the fact that although their turnover has gone up, as have road freight charges, and that they are now delivering to Ireland as well, their pool rates have decreased.

	Haulage rates	Pool Rates	strawberry tonnes	strawberry turnover	all fruit tonnes
1995	100.0	100.0		100	
1996	103.7	89.25	3890		4677
1997	107.1	93.00	3574		4386
1998	110.7	94.00	4792		5671
1999	113.1	94.00	5684		6671

Since 1995 they have experienced an increase in cost efficiency 19.1% . If we allow half of this saving to be due to securing more favourable haulage rates, KG are achieving a around a 10% reduction in road miles per tonne delivered. Therefore there are significant cost savings which can accrue (offsetting potential increases in costs due to decentralising growing/packing) , which become more significant as transport and congestion costs increase.

Overview and Potential of Current Eco-Labelling Schemes

The ideal situation for sourcing local sustainable food would involve a food labelling scheme which could certify sustainable agriculture. Organic labelling schemes are well set up and certify a highly sustainable system, representing around 1.3% of UK agricultural area and rising. Not all agricultural land will be suitable for organic production. In the meantime it is highly desirable to be able to differentiate between a producer who uses minimal chemical inputs responsibly, leaves conservation headlands, plants and maintains hedgerows and other wildlife features, for examples, and a producer who does not.

Below are brief descriptions of the main agricultural/ food labelling schemes currently operating in the UK.

Organic. Organic production is based on the principle of maintaining and increasing the long term fertility of soils, minimising pollution, using renewable resources, encouraging and enhancing biological cycles within the farming system, and not using artificial pesticides and other chemicals, or prophylactic antibiotics (constant dosing). The standards for organic agriculture are set by the International Federation of Organic Agriculture Movements (IFOAM) which also accredits organic certification bodies. In the UK there are six organic certification bodies, of which the main are the Soil Association and Organic Farmers and Growers. 80% of UK organic producers are certified with the Soil Association, although Organic Farmers and Growers certify some of the larger organic holdings.

The Soil Association certification scheme involves criteria higher than the basic IFOAM standards, including for example measures to protect wildlife and biodiversity. UK demand for organic food is growing faster (40% a year) than supply (25% a year growth).

Conservation Grade. Conservation Grade requires maintenance or improvement of soil fertility, reduced reliance on non-replaceable raw materials and care and concern for wildlife, soil flora and fauna, the protection of natural habitats, the proper and careful maintenance of farm buildings and buildings of historical interest, archaeological sites and public rights of way. No factory farming practices are allowed. The certification scheme is run by the Guild of Conservation Producers, National Agricultural Centre, Warwickshire.

Unfortunately this scheme is currently limited to 130-140 members, almost all of whom are cereal producers.

Countryside Stewardship. A grant-scheme run first by Countryside Commission and then by MAFF. Countryside Stewardship has multiple objectives: to sustain landscape beauty and diversity, to protect and extend wildlife habitats, to conserve archaeological and historic features, to restore neglected land or features, to create new habitats and landscapes and improve opportunities for people to enjoy the countryside through the provision of new or improved access. Eligible areas and features are - chalk and limestone grassland, waterside land, lowland heath, the coast, the uplands, old meadows and pasture, historic landscapes, old orchards, field boundaries, field margins on arable land and countryside around towns.

Countryside Stewardship involves ten-year agreements – there are currently 143,055 hectares under Countryside Stewardship agreements. It is not a labelling scheme for food, however there could be scope for using this scheme to differentiate between wildlife-friendly and non-wildlife-friendly farmers.

Assured Produce / Integrated Crop Management / LEAF. Integrated Crop Management is an approach which has its stronghold in the USA. It is becoming good practice in the UK, particularly through the Assured Produce labelling scheme which takes Integrated Crop Management as its basis. Similarly the Assured Combinable Crop Scheme takes Integrated Crop Management as its principles. LEAF (Linking Environment and Farming) promotes Integrated Crop Management through its demonstration farms and information service.

In the UK an organisation called Checkmate (01993 880330; www.assuredproduce.co.uk) administer the Assured Produce Scheme. They have a team of technologists working as verifiers, and have protocols for every crop. They have 3,500 members representing 185,000 hectares of fruit, vegetables and salad crops.

The Assured Produce Scheme is assessed through a annual Self Assessment Questionnaire (SAQ). Probably one third of these are verified by Checkmate.

LEAF. Linking Environment and Food is a charity with 1,500 farmer members. They run an annual Self Assessment Audit which is more comprehensive than the Assured Producer Scheme questionnaire. LEAF will then provide the farmer with an audit highlighting areas where they can improve, although whether they do or not is not verified by a third party. LEAF is not a label which can be displayed on produce, due to the lack of verification, but the producer can use it on their letterhead.

LEAF would like to see a labelling scheme which promotes environmentally friendly farming to the consumer, and are particularly working with Waitrose, Sainsbury and CWS Retail to develop labelling schemes. Any labelling schemes will include verification.

Living Landscapes. Sainsbury's operate a Living Landscapes label, where producers develop a Farm Biodiversity Action Plan in line with the UK Biodiversity Action Plan and the Farming Wildlife Advisory Group. This leads to habitat creation and management to increase wildlife conservation on the farms, and is additional to Sainsbury's own Integrated Crop Management programme.

Land Stewardship Council. On 20th January 1999 a seminar was held at Green College, Oxford, to discuss a proposed Land Stewardship Council. This proposed "a farm certification and food labelling system to reward farmers who maintain and improve existing wildlife habitat on their land, create new habitat and enhance the wildlife value of farmed areas, while also promoting animal welfare and producing high quality food… Where suitable standards exist they should be incorporated into the Land Stewardship Council approach". Since then an informal discussion group has been formed which meets once a year, and produces occasional discussion papers. It remains a promising idea.

Conclusions

There is no one environmental label, apart from organic, which can thoroughly identify the environmentally-responsible farmer. The supermarket retailers have in recent years thrown their weight behind Integrated Crop Management, whether under the Assured Produce Scheme or their own in-house Integrated Crop Management schemes, to the extent that nearly 100% of their suppliers are working to these principles. This will be having benefits in terms of the reduction of chemical inputs and general environmental responsibility.

However, some elements of Assured Produce, such as conservation, are not compulsory. A certification scheme has much greater impact and scope for positive benefits if it is one demanded by the key retailers. Therefore the best route to a "sustainable food label" may well be for standards addressing landscape, conservation and soil management to be included as compulsory elements of Assured Produce or Integrated Crop Management schemes.

Food Miles Issues and the Development of a Food Miles Index

Background

Issues relating to Food Miles – the distance food ingredients/products travel between points of production and consumption – emerged sporadically in the media through the 1990s driven, largely, by special interest groups concerned about sustainability and environmental impacts of modern food production and distribution.

- Earth Rescue noted that living sustainably implies "conscious awareness of the inter-relatedness of all life and the cyclic, sustainable systems of nature; understanding and supporting cultural, social and spiritual values of this awareness and how humans can live ecologically balanced lives; and viable technologies that do not further harm, but rather help heal, the planet".
- In 1994, the SAFE Alliance released "The Food Miles Report: The dangers of long distance food transport" and followed this up with a "Food Miles Action Pack" in 1996.
- Public discussion about food miles has not been pervasive with coverage, largely, being restricted to specialist magazines and a very few radio/TV programmes (e.g. Derek Cooper's Food Programme and Jonathan Humphrey's Food Court, both on Radio 4). A media search, with "Food Miles" the identified key phrase, covering all national and regional newspapers in the UK over the 24 month period October, 1997-September, 1999 uncovered only eight (8) mentions.

The tenor of the 1990s limited debate on food miles issues was, often, simplistic, with the "green" protagonists adopting an unequivocal position – imported, particularly air-freighted food being portrayed as intrinsically bad, whereas, locally-produced food was intrinsically good. The free marketeer response was that any reduction in world food product "offer" represented an unacceptable assault on consumer choice. Yet, food miles issues, like most others, are more complicated than meets the eye:

- fossil fuel usage to transport produce by air across continents has a harmful impact on the environment which is not accounted for in market prices (i.e. bearing *external* costs). The same can be said for crops grown in greenhouses within our own markets. However, air pollution resulting from air freight carbon dioxide emissions is particularly contentious as its incidence is increasing, and the fuel is untaxed ;
- there are economic benefits to families, firms and the nation in, say, Kenya associated with the export of high value fresh produce to Europe;
- Ricardo's Law of Comparative Advantage has shown considerable resilience over the past couple of centuries and "tit-for-tat" self-sufficiency policies could have a negative impact on world economic growth – of course, this might be seen as a plus by some! Neo-classical economic theory argues that it is economically more efficient to specialise in food production where a region has comparative advantage in terms of factors of production (e.g. climate, soils, topography) and, then, trade with countries that have a comparative advantage in other goods. Specialisation can result in economies of scale and, indeed, lower fertiliser and herbicide usage – factors that must be balanced against costs of transportation;
- perched on the edge of northern Europe, the UK has long been a major importer of foodstuffs to the great advantage of the national diet and health of the citizenry (e.g. we are only 10% self-sufficient in fruit).

Factors Driving Interest in Local Food and Food Miles. In this first decade of the Twenty First Century, a number of factors are coalescing that may well raise the profile of food miles to the advantage of most stakeholders in the national food chain:

- consumer surveys indicate that freshness is the most important factor influencing shopper purchases of fruits and vegetables (followed by price), and food produced closest to the point of consumer purchase is perceived as being the freshest;
- in part because of this perception, most shoppers express a preference to purchase UK produce relative to imported items. However, the reality of most people's shopping behaviour (e.g. hurried, stressed, inundated with food products) is that "source of origin" is not a major *de facto* driver of product choice at the retail shelf;
- with the expectation of continued real income growth over this decade in post-modern, relatively high income northern Europe, the relative importance of price will diminish in food purchases and the relative importance of more esoteric variables, such as environmentally-friendliness, will increase;
- waves of food crises have reduced consumer confidence in the food industry. Food produced domestically (i.e. in the UK) is perceived to be safer, as well as fresher, by some, particularly, older consumers (Wye College consumer survey, December, 1999);
- in a world, increasingly, influenced by global events outside our control, rapid technological change, and a food product supply characterised by 52 week availability of fresh produce that hitherto was only seasonally available, some older consumers take a halcyon, nostalgic view of food and meals from another era. One effect of this rose-tinted view is that it stimulates demand for local, seasonal produce, with known provenance;
- for many households, food shopping, preparation and consumption can be placed into two categories, viz. "drudge" and "leisure". The former mode values convenience very highly and is associated with "during the week" eating. The latter values other attributes, such as taste, freshness, status, and is much more than a re-fuelling exercise. A plethora of TV programmes are focused on satisfying demand for information on leisure/lifestyle cooking and eating. One important thread in many of these programmes is the middle class British culinary renaissance – traditional foodstuffs, consumed in-season;
- in a mature market for food, such as the UK, major supermarkets seek to differentiate themselves from their competitors through offering a more attractive range of, in particular, own/private label fresh products – such as unique varieties, locally-grown, first-of-the-season etc. (see later). This focus is a reflection of the feedback received from their customer surveys and category management research;
- under increasing margin pressure, UK supermarkets and their suppliers are seeking to squeeze additional or maintain existing margins through exploiting efficiencies in their supply chains. Costs of transporting relatively high volume/low value temperature-controlled food products (e.g. fruit and vegetables) are relatively high and it makes commercial sense to find means of minimising these;
- influential environmental lobby groups have recognised that UK consumers are, increasingly, sympathetic to "green" issues and "Food Miles" will appear higher up their agenda through this decade.

Local Food and Road Mile Reduction Initiatives in the Supply Chain. All the major supermarket chains view local sourcing and retailing of fresh produce and, to a lesser extent, locally-processed foods as bringing them competitive advantage (see BioRegional presentation to the Countryside Agency, February, 2000, and Tesco/Somerfield presentations to the CA Local Food Seminar, May 17th, 2000). All the major chains are undertaking significant rationalisation of their supply bases – wishing to deal with fewer, larger, more technologically sophisticated, and more strategic firms. This trend would seem to militate against dealing with an expanded base of smaller-scale "local" suppliers. But, this is not necessarily the case as Tesco *et al* will give, increasingly, the responsibility for developing a "local offer" to its key suppliers (i.e. Category Captains) who will link with local/regional individual farmers/groups to provide a “local” service on a national basis. In store, Tesco indicates that it will integrate the local/regional products into their appropriate categories (e.g. local tomatoes into the tomato category). Somerfield, however, envisage a local/regional composite category, per se (i.e. grouping local products together, irrespective of their category status – local produce with local honey etc.).

Current Tesco initiatives on local and regional sourcing include the following:

- highlighting locally and regionally sourced products on pack;
- highlighting local products with POS and posters in-store;
- ensuring that all suppliers deliver into their local depots;
- using the opportunity of direct to store delivery for “truly local” products;
- highlighting new season UK products at the start of the seasons;
- asking all regions to highlight stores where local is particularly important to customers;
- identifying which local products are particularly demanded in the above stores;
- ensuring that customer requirements are fulfilled in such stores;
- range analysis of small grocery lines;
- help for small suppliers through a food brokerage;
- initiating processes which ensure that HQ consults with regional managers on regional and local ranges (source: Tesco rep. At Countryside Agency Seminar).

With J Sainsbury plc the lead player, most of the major chains have environmental management policies and programmes that, *inter alia*, have objectives that address the minimisation of travel miles in the UK-based distribution of food. JS has three key environmental priorities, viz.: reduce the environmental impacts of products (e.g. through ICM etc.); reduce carbon dioxide emissions – through, not least, reducing distribution costs; and reduce waste. The transport target identified in the 1999 JS Environment Report is – “by March 2001, define product miles in our distribution network and continue to develop systems and implement targets to quantify and reduce mileage and increase vehicle fill each year, while achieving required availability”. What is important to recognise, here, is that JS is publicly-committed to reducing distribution mileage, but, is still *en route* to measuring them such that the company can set a specific quantitative target. Further, expanding the local food product offer is not necessarily compatible with reducing primary and secondary distribution mileage (i.e. it may be more transportation efficient to pick-up from a centralised depot and deliver to stores than to undertake a series of independent journeys linking a local or regional store(s) with a local or regional supplier(s).

Tesco view that a significant contribution in margin growth over the next few years will come from identifying and removing inefficiencies in the supply chain. To this extent, the company has a “swat” team – the Lean Supply Team – tasked with identifying cost saving opportunities and minimisation of transportation costs are high on the team’s list. Similarly, J Sainsbury is in the process of rescheduling deliveries from RDC to store to incorporate pick-ups from suppliers en route for RDC delivery, thus, increasing the capacity utilisation of its carriers and reducing the road miles associated with food product delivery.

Interviews with suppliers to the major chains revealed some ambivalence to the notion of increasing the local food product offer. They perceived that it would place additional strains on over-burdened buyers and store managers, and would complicate existing traceability schemes (although, the reality is that most of the retail procurement and merchandising tasks will, increasingly, be delegated to the supplier). One major fresh potato supplier to the multiples had analysed the transportation patterns for main crop potatoes to one of the principal chains. This task was relatively complex and required making assumptions on the volumes of products and their primary points of supply for other potato suppliers to the chain in question. The conclusion drawn was that the existing distribution pattern was close to optimum (i.e. if the system was to be designed from scratch, then, the primary and secondary distribution facility structure would be much as it is, today.

Successful, progressive suppliers were, in general, enthusiastic about increasing the local food offer. However, they identified some prospective issues:

- the enthusiasm of a region for an expanded local produce programme would be contingent on their current self-sufficiency status. Scotland produces 20% of the nation's potatoes, but, accounts for only 10% of our population. Clearly, the Scottish potato growers would view that their relatively disease-free production environment is particularly suitable for tuber growing, whereas it is not so advantageous for, say, apple growing! ;
- local coverage could duplicate pack houses and expensive post-harvest infra-structure (operating pack houses at less than full capacity can be very financially painful in markets that are over-supplied);
- local sourcing does not necessarily deliver environmental benefits, in terms of reduced road miles, or fertiliser/chemical usage in the production process.

At the micro-level, there have been notable developments in the supply of local food products to consumers through the burgeoning farmers' markets, box schemes, farm to consumer electronic selling, and whole food retailers. Such farmer initiatives represent a tiny proportion of the total retail value of fresh foods sold in the UK, however, there importance is proportionately much greater. Farmers' markets make attractive media features and they are harbingers of emerging consumer demand. This is confirmed by customer feedback to the major supermarkets. Local, regional and seasonal food demand is on an upward trend.

Consumers are demanding more local food products, supermarkets appear enthusiastic to respond and to increase the local "offer", environmental lobby groups have food/road mile reduction firmly on their agendas, government agencies, such as the Countryside Agency, are supportive for social, economic and environmental reasons, so why is supermarket uptake of local food products, still, relatively modest?:

- the "due diligence" requirements of the 1990 UK Food Safety Act served as a powerful constraint to supermarkets dealing with smaller-scale suppliers. Further, the essence of supermarket success had been based on centralised purchasing of high volume items and reverting to a more fragmented purchasing policy can be seen as both commercially damaging and higher risk with regard to food safety/traceability issues;
- notwithstanding the strong, positive shopper signals re. local food, one should not underestimate the importance of inertia in huge volume retailing chains. Their commercial world is dynamic and local food may, still, be low on their action lists. It can be seen as a lot of work for little return – Tesco identify sales of local food products are, currently, £250 million (Countryside Agency Seminar), impressive, but, small relative to the company's £20 billion turnover. An increased local "offer", initially, will mean more work for buyers, category managers, distribution system engineers, retail store staff and will require decisions on products that may be delisted to make room for unproven products.

Local/Regional Food Objectives of the Major Stakeholders.

Shoppers and Consumers – a complex melding of objectives which revolve around a desire for freshness, traceability and linkages with the producer, culinary nostalgia, and supporting local farmers and food processors.

Supermarkets – satisfying emerging consumer demand and gaining competitive advantage through providing a local/regional customised offer to their shoppers.

Suppliers to Major Supermarkets – gain the approval and loyalty of their customers through providing a comprehensive range of procurement services and removing the operational problems associated with sourcing and maintaining supply of high integrity local foods.

The Countryside Agency – to support the UK's landscape character and employment in the countryside, assist smaller-scale businesses access mainline supermarkets, encourage economic and social development in rural areas ("Eat the View").

BioRegional and WWF – to promote a wide range of sustainability initiatives, including food/road miles, that will have a positive impact on, inter alia, bio-diversity.

Pushing on an Open Door: WWF/Countryside Agency /BioRegional Initiatives to Promote the Sale of More Local Foodstuffs through Mainline Supermarkets

Supermarket chains pride themselves on being consumer-led and the emergence of farm assured, GM free, organic foods is testament to their consumer sensitivities. A logical extension of this trend is towards a wider range of locally/regionally sourced fresh and processed food products becoming available in mainline retail outlets. This will not be universally applauded. Small-scale independent shops have used local and regional speciality food products as points of differentiation between themselves and the major chains, and an expanded local offer through supermarkets will pose a competitive threat. Organisations such as the Speciality Foods Section of Food From Britain, the various Development Agencies (e.g. WDA, SDA), and regional groups such as Taste of the West and Kentish Fare are providing smaller-scale businesses with support to access the supply chains of the major chains. In short, additional initiatives in this immediate area may be perceived as being replicative.

If the principal objective of a proposed initiative is environmentally-driven, i.e. to reduce carbon dioxide emissions in the transportation of food from point of production to point of retail sale (even consumption), then, one approach would be to develop a food miles index and measure the performance of major retailers on this index over time. This would bring some complexity:

- supermarkets have thousands of products on their shelves, all of which have differing characteristics in terms of supply base, processing etc. As of today, the supermarkets do not have readily available information on road/air/sea miles for each product. Determining such would be relatively resource intensive although, in practice, it would be an activity delegated to suppliers (in particular, the lead supplier, or "category captain");
- as identified earlier, for the index to have "green" validity, it should take into account the net environmental effect of, say, generating benefits through reducing food air miles minus the replacement environmental costs associated with sourcing more local, but, greenhouse-grown produce;
- similarly, within the UK, generating a back-haul opportunity may raise the road mile count for a specific product, but, reduce overall transportation costs because of better capacity utilisation of trucks;
- and, of course, focusing on minimising miles travelled by food item is too simplistic as the relative weighting of air, sea and road miles differs with regard to their environmental effect (e.g. the shipping charge for a case of wine transported by sea from winery in Australia to warehouse in London is approximately £1. The warehouse to supermarket RDC road transportation charge within the UK is, also, approximately £1!).

Despite the complexities involved, establishing a pilot scheme for a sub-set of products could be useful exercise to investigate the problems associated with full-scale launch of a food miles index and the "ground rules" under which such an index could be used. Most likely, the products concerned would need to meet some or all of the following criteria:

- not require specialist environmental attributes (e.g. soil, climate) and could be grown with relative ease throughout the country;
- be largely UK-based products, with relatively few imports;
- have a simple supply chain – from grower through to retailer, without significant processing;
- be relatively high volume-low value products where transportation costs contribute significantly to the overall costs of bringing the product to the retail shelf.

Products that come to mind for a pilot scheme include potatoes, brassicas and strawberries. Likely, the focus should be on measuring the road miles travelled by domestically-grown products from farm to supermarket store. The lead supplier for each of the major supermarket chains should have sufficient knowledge of - miles travelled from farm to pack house, pack house to RDC, and an average mileage for RDC to retail store – for its own produce and for that of the other suppliers servicing the supermarket in question. The total miles travelled by, say, domestically-produced potatoes for Tesco in the base year would, then, be set at index 100. The intent would be to set mileage reduction targets over, say, a three year period and measure and report performance accordingly. The challenge would be to convince the main boards of each supermarket that the food miles initiative had value – whether it be contributing to their environmental agendas, improving profitability through cutting supply chain costs, and/or generating PR advantages re. local sourcing, responsible corporate citizenry etc.

If the principal objective of any initiative, however, is to encourage the production and sale of local and regional food products, a more direct approach may be more effective and easier to implement than the more complex food miles initiative. Specifically, interested parties such as WWF and The Countryside Agency could approach senior representatives of each supermarket chain seeking their support on The Countryside Agency's "Eat the View" platform. As evidenced by the Tesco representative's claim of Tesco selling £250 million of "truly local products per year" (Countryside Agency Seminar), the major chains are already measuring their local and regional product sales volume. WWF/ The Countryside Agency could encourage the supermarkets to set growth targets for local products that were substantially in excess of expected sales growth for food overall. To raise the ante and cater for the chains' competitive urges, WWF/The Countryside Agency could establish a "Local Food Retailer of the Year" award, with distinct categories for supermarkets, independent stores, farmers' markets etc. It would be important for WWF/The Countrsyide Agency to define with precision what are local and regional food products to ensure clarity when measuring sales performance for such by food retailers.

In conclusion, the objectives of the various stakeholders associated with encouraging the sale of local and regional foods are very much aligned. There is an unique opportunity for WWF/The Countryside Agency to "push on an open door" and accelerate the development of supply chains that are consistent with emerging consumer demand for local and regional food products of known provenance.

Initial Recommendations on Communications

Initial ideas on communications are given below. These will need to be reviewed when the exact nature of the project takes shape and partners are secured.

Objective:
To identify key audiences for local food project and messages that will engage them

Key target audiences:

1. Business audience - Supermarkets/Food retailers (CEOs/Buyers etc)

2. Consumers – specifically women/mothers?

1. Business audience:

Messages:

Recent research has shown that X% of consumers would prefer to buy food that has been produced locally because of the following benefits:

- reduction in road transport miles meaning a reduction in pollution and positive impacts on health e.g. asthma; local, seasonal food has more taste
- helps provide local jobs
- food can, for some products, be sold at a reduced price

2. Consumers – women/mothers:

- X supermarket has today joined a scheme with leading "sustainability" organisation - BioRegional/The Countryside Agency/WWF, to stock a varied range of locally produced food.

What this means to you:
As listed above

Suggested communications strategy:

Pick an "artificial deadline" on which to make an announcement that X supermarket(s) have today signed up to start selling a range of locally produced food. This deadline can help pull in a company who are prevaricating about whether or not to join the scheme.

The launch date could have a supporting communications strategy for both sets of target audiences:

Business audience:
BBC Radio 4 Farming Today
BBC Radio 4 Today programme
BBC TV Business Breakfast
BBC TV Working Lunch
Financial Times etc

Spokespeople – including BioRegional, Professor Hughes, Countryside Agency, CEO of first supermarket to join up, owner(s) of River Café in London (co-owned by Sir Richard Rogers wife) who try to use only seasonal, locally produced food in their swanky restaurant – could do a “business lunch” launch from the restaurant cooked by them with locally produced food from the supermarket who has signed up to the pilot)

Consumers/Women(Mothers):

GMTV
BBC Radio 4 “You and Yours” consumer programme
BBC Radio 2 Jimmy Young show
Daily Mail/Daily Express

Spokespeople – including BioRegional, “celeb” endorsing scheme (Loyd Grossman or River Café), Countryside Agency, plus CEO of supermarket

There are gaps which can be filled as the project develops. These include

- Market research –any new research that is coming out
- Ideas for a Local Food Retailer of the Year Award
- Transport Road Miles Index – form this may take
- Statistics on environmental benefits such as CO_2 strawberries from Kent/Israel
- Role of companies such as Product Chain

Conclusions and Recommendations

The research has shown that regional producer networks are feasible for a range of fresh produce, and that supermarket demand can drive production to this sort of model. Producers will adapt to meet demand, as they have adapted to meet recent demands for rationalisation. Whereas there is little environmental benefit in terms of reduced CO_2 emissions from secondary distribution (supermarket retail distribution centre to store), major savings can be made from primary distribution (producer to retail distribution centre).

Producer co-ops already running a number of packhouses will be better placed to adapt to a regional producer network approach. Packhouses in different regions of the country could be contracted to pack produce on behalf of the producer co-op. Where necessary, new producers would need to be sourced, meeting the usual standards of the retailers, in order to provide a regional network of producers. This gives a good opportunity to source from, and therefore support, smaller and/or more environmentally-responsible producers. Similarly there are mechanisms such as the brokerage services offered by companies like Product Chain Limited which can enable smaller scale producers to gain access to supermarkets.

With regard to labelling, the plethora of labels on the market is leading to consumer confusion. For a certification scheme with a broader remit than “organic”, it may be worth concentrating on strengthening the requirements of Assured Produce and Integrated Crop Management schemes which are already supported by the major retailers - conservation criteria are currently included but not compulsory.

Consumer surveys indicate that freshness is the most important factor influencing shopper purchases of fruits and vegetables (followed by price), and food produced closest to the point of consumer purchase is perceived as being the freshest. The issue will be of how to incentivise buyers of the national retailers. To some extent this could be done via policies to minimise road miles (although these need to be set in the context of potential environmental disbenefits of losing comparative advantage). Despite the complexities involved, establishing a pilot scheme for a Transport Road Miles Index for a sub-set of products could be useful exercise to investigate the problems associated with full-scale launch of a food miles index and the “ground rules” under which such an index could be used.

A more direct approach than a road miles index would be for The Countryside Agency to encourage the supermarkets to set growth targets for local products that were substantially in excess of expected sales growth for food overall. This could link to establishing a “Local Food Retailer of the Year” award, with distinct categories for supermarkets, independent stores, farmers’ markets etc.

However, any move towards a wider range of locally/regionally sourced fresh and processed food products becoming available in mainline retail outlets will not be universally applauded. Small-scale independent shops have used local and regional speciality food products as points of differentiation between themselves and the major chains, and an expanded local offer through supermarkets will pose a competitive threat. In addition, organisations such as the Speciality Foods Section of Food From Britain and the various Development Agencies are providing smaller-scale businesses with support to access the supply chains of the major chains. Further initiatives in this immediate area may be perceived as being replicative.

In conclusion, the objectives of the various stakeholders associated with encouraging the sale of local and regional foods are very much aligned. There is an opportunity to accelerate the development of supply chains that are consistent with emerging consumer demand for local and regional food products of known provenance.