

Grow EM: The Horticultural Industry in the East Midlands



Foreword by the Grow EM Steering Group

This report is designed to give a comprehensive review of the state of the Horticultural Industry in the East Midlands in 2010. It quantifies the scale and scope of the fresh produce, potato and horticultural industry across the five counties of Lincolnshire, Nottinghamshire, Leicestershire, Derbyshire and Northamptonshire and highlights the significant contribution made by the industry to the regional economy.

It also draws out a number of the key challenges the sector faces over the coming years – whilst business confidence is high there remains concern about supply chain margin pressure, the loss of R&D capability and attracting and retaining quality personnel into the industry at all levels of production and management across the value chain.

We are indebted to *emda* for agreeing to fund the cost of this report, and to all of the support given to us by others in the industry, including the Horticultural Development Company (HDC), Fresh Produce Consortium (FPC) and Processed Vegetable Growers Association (PVGA). We have also drawn heavily on the analysis work of Plimsoll when quantifying the value of the supply chain activity.

Most of all we wish to thank all of the businesses in the region who gave up their time to complete questionnaires and attend focus groups. This report is an industry driven report which has been informed by those who chose to participate in the focus groups and by those who shared information through the survey. We hope it will be invaluable for all stakeholders in shaping future policy and direction for the industry.

Simon Fisher
NFU East Midlands

Mark Tinsley
P C Tinsley Ltd

David Piccaver
J E Piccaver & Co Ltd

Sarah Pettitt
National Chair –
NFU Horticulture & Potatoes

Table of Contents

Appendices.....	v
Index of Charts.....	vi
Index of Tables.....	viii
1 Executive Summary	1
1.1 Primary Production.....	1
1.2 Supply Chain and Retail	2
1.3 Industry Issues and Outlook.....	3
2 Terms of Reference	6
3 Introduction	8
4 Approach.....	10
5 Primary Production	11
5.1 Survey Findings.....	11
5.1.1 Survey Outline.....	11
5.1.2 Location of East Midlands Horticultural Businesses.....	11
5.1.3 Distribution of Primary Horticultural Output within the East Midlands	12
5.1.4 Horticultural Crop Area and Value.....	13
5.1.5 Employment Trends.....	19
5.1.6 Proportion of Inputs Purchased within the East Midlands Region	20
5.1.7 Sales of Primary Horticultural Produce in the East Midlands.....	21

5.1.8	Grower Confidence and Supply Chain Opinions.....	22
5.1.9	Challenges Facing Growers' Businesses	25
5.2	Valuation of the East Midlands Primary Horticultural Output.....	32
6	Value Adding.....	35
7	Retail.....	37
8	Industry Outlook and Issues	38
8.1	Supply Chain Structure.....	38
8.2	Research and Development (R&D) and Knowledge Transfer (KT)	40
8.3	Transport and Other Infrastructure.....	42
8.4	Collaboration	43
8.5	Employment and Skills	44
8.6	Water	46
8.7	Industry Representation.....	47
8.8	Provenance.....	48
8.9	Summary of Priorities Raised.....	48
9	Conclusions and Recommendations.....	50

Appendices

Appendix 1 - Project Terms of Reference

Appendix 2 – Survey of Growers

Appendix 3 – Survey of Supply Chain Businesses

Appendix 4 - Schedule of Focus Groups Held

Appendix 5 – Driving Change in the Fresh Produce Sector (Executive Summary of an EFPF Report)

Appendix 6 – A Review of the Provision of UK Horticultural R&D: August 2008 (Executive Summary of a Report by Brian Jamieson and Associates)

Appendix 7 – Transport Infrastructure Issues in South Holland

Appendix 8 – Conclusions of the Fruit and Vegetable Task Force (August 2010)

Index of Charts

Chart 1	East Midlands Horticultural Businesses by County
Chart 2	East Midlands Primary Horticultural Output by Location
Chart 3	Horticultural Crop Area in the East Midlands 2005-2009
Chart 4	Change in the Value of East Midlands Primary Horticultural Output 2005-2009 per hectare
Chart 5	Changes in the Total Value of East Midlands Primary Horticultural Output 2005-2009
Chart 6	Employment Trends
Chart 7	Proportion of Main Grower Inputs Purchased in East Midlands
Chart 8	Proximity of First Processor to Horticultural Grower
Chart 9	Proportion of Sales to Businesses in the East Midlands
Chart 10	Grower Confidence in their Business Future
Chart 11	Grower Opinion of Information Flow between Supply Chains
Chart 12	Grower Opinion of Transparency between Supply Chain Levels
Chart 13	Grower Opinion of Communication between Supply Chain Levels
Chart 14	Recruiting and Retaining Staff
Chart 15	Consolidation of Power
Chart 16	Profitability and Investment
Chart 17	Current Supply Chain Structure
Chart 18	Loss of R&D and Knowledge Transfer Capability
Chart 19	Water Security
Chart 20	Loss of Crop Protection Products
Chart 21	Flood Management and Sea Defences

Chart 22	Planning System and Business Expansion
Chart 23	Relative Importance of Industry Issues
Chart 24	Valuation of the East Midlands Primary Horticultural Output
Chart 25	Value of Supply Chain Businesses

Index of Tables

Table 1	Estimated Crop Areas in the East Midlands by Crop Type
Table 2	Horticulture - Area data from 2007 DEFRA census
Table 3	Changes in the Value per ha of East Midlands Horticultural Output
Table 4	East Midlands Horticulture Industry Employment Levels 2005 and 2009
Table 5	Valuation of Primary Horticultural Output of the East Midlands Region
Table 6	Valuation of Supply Chain Businesses by County

1 **Executive Summary**

1.1 **Primary Production**

- The horticultural and potato industry's role in the East Midlands region is significant. Primary research by Bidwells Agribusiness suggests the industry has a value of over **£470 million** per annum at farm gate level, and this is in line with published studies by DEFRA and others.
- Nationally the farm gate value of the horticultural sector is about £2.6 billion in England about £3.1 billion in the United Kingdom. The **East Midlands region is the second most important** in the United Kingdom in terms of potato and horticultural output. Potatoes and horticulture are also very important to the East Midlands in terms of total agricultural output, representing over 20% of the region's agricultural output as opposed to 17% of agricultural output across England as a whole.
- In terms of production area, **the East Midlands represents 26% of the total English horticultural area at over 38,000 ha of crops**. Lincolnshire alone represents 86% of regional area of horticultural crops - or 22% of the English area. In field vegetables the importance is even more pronounced – 32% of the English crop area is in the region, with 28% in Lincolnshire. Lincolnshire also represents 40% of the national bulb and flower area. The area is also dominant in potato production – 17% of the English crop is grown in the region; with the majority in Nottinghamshire (13% of the East Midlands area) and Lincolnshire (79% of the regional area). South Holland accounts for 30% of regional production area and 5% of the English area.
- Although the value of output associated with the agricultural sector is higher than that associated with the horticultural sector, the **value-added per unit of output is higher for horticulture (45%) than for agriculture**. This is because agriculture, while a large sector, 'recycles' much of its value through what is called 'intermediate consumption' (i.e. fertilisers are used to grow crops which are then converted into meat or milk). In comparison horticulture 'creates' much more of its value; in the simplest of terms growers do this by capturing the sunlight and converting it into marketable crops - a short, efficient and highly productive process. Therefore, horticulture is important to the East Midlands economy because of its productivity and not just its size.
- The horticultural sector represents a **very diverse group of growers with a range of differing financial performances at individual business level**. The sector includes highly intensive glasshouse operations and others producing top fruit and vegetables on a field scale. It is not possible to isolate regional performance from the available data, but looking at national farm business income (FBI) from

the last available farm business survey, the average FBI of Horticultural businesses in 2008 fell by 43%, from 2007 to £29,305. This fall followed four consecutive years of increased profitability within the industry. For horticultural businesses as a whole, the percentage equity in the business decreased very slightly during the last year to 77.2%. The value of Fixed Assets increased by 6.8% to £479,292, and total External Liabilities increased to £145,715 per business.

- **The value of horticultural primary output in the East Midlands region is rising** and reached £478.3m in 2009, an increase of 16.6% since 2005. The horticultural crop area has increased by 6.3% in the East Midlands between 2005 and 2009. Despite this there were falls in the areas of legumes, root crops, brassicas and hardy nursery stock.
- The PE postcode region of Lincolnshire is the key production area accounting for over 60% of the horticultural output by value. Lincolnshire is one of the most important counties in the UK in terms of horticultural production.
- Although there are serious difficulties facing horticultural production in England (recent research by EFFF showed that growers reported margins of less than 2.5%) the recent DEFRA task force report believes that there are also great opportunities. This is borne about by the primary research in this study which confirms that, despite financial issues within some grower businesses, there is a generally **a high level of confidence within grower businesses of their future**. Over 70% are confident of their future.
- The key challenges for the industry in the next 5 years are loss of crop protection products, low current profitability restricting investment and the loss of regional R&D capacity.
- There has been overall growth in sector employment with significant increase in self employed, casual, administrative and part time staff. There was a small reduction in the number of full time employees.

1.2 Supply Chain and Retail

- The added value elements of the supply chain are worth circa **£2.7 billion** per annum to the East Midlands Economy (as a five-year average). This breaks down between the fresh produce industry (to include packing, processing, importing and wholesaling) worth circa £1,950 million, potato packing and processing £420 million and non-edible horticulture £350 million.

- Turnover grew from £2.1 billion to £3.2 billion over the last five years and over 90% of this turnover occurs in Lincolnshire. Despite the growth in turnover, analysis by Plimsoll suggests that **the value of many companies has reduced over that period** – at a UK level 346 companies in the UK Fresh Produce industry lost over a third of their value in the last year – and only 360 companies managed to increase their value – a record low figure in the history of Plimsoll producing the analysis. This would suggest that some businesses are protecting market share and turnover at the expense of profitability.
- The total spent by consumers in the East Midlands on fresh and processed vegetables (including potatoes) per person is £260 per year, giving a retail value to the potato and horticultural edibles sector of circa **£1.15 billion**. The fact that this is smaller than the value of the supply chain sector demonstrates the importance of the region's supply chain sector supplying retail and food service outlets in other regions of the UK. East Midlands consumers consume 185,000 tonnes of potatoes and almost 550,000 tonnes of fruit and vegetables per annum. In addition it is likely (though difficult to accurately quantify) that the landscape industry sector has a value in excess of £210 million and garden retailing has a value in excess of £340 million.

1.3 Industry Issues and Outlook

- A number of the industry issues which were raised in this report are of National Significance, and which mirror previous reports looking at industry issues. These include supply chain structure, horizontal collaboration, research and development, labour availability and skills.
- On **supply chain structure** it was felt that the relationships between growers, packers, processors and retailers are commercial relationships. The overwhelming feedback was that these relationships should be left to the market, and for individual businesses to negotiate. Growers did acknowledge however that there may be a role for intervention in some circumstances and there was some support for a Groceries Adjudicator amongst elements of the grower base providing it is focussed on being a 'facilitator' to improve overall supply chain efficiency and does not just act as a 'policeman' dealing with individual issues.
- On **horizontal collaboration** there were very mixed experiences of the Producer Organisation (PO) scheme with some bitterness towards DEFRA and RPA from those who had been in PO's which had been de-registered. It was felt that DEFRA needed to argue for more flexibility implementing the PO regime in the UK, as the UK model of collaboration tended to be 'looser' than the centralised facilities model adopted by other European countries.

- A wide range of views are held on **Research and Development (R&D) and Knowledge Transfer (KT)** but there was a strong acknowledgment that there had been a loss of pure and applied R&D and knowledge transfer capabilities. R&D and KT budgets will come under pressure, and the rising cost of SOLAs is likely to put further pressure on HDC. There is strong support for industry led R&D within crop associations and by groups of businesses, but an acknowledgement this is 'near to market' R&D and that the demise of HRI leaves a gap for strategic R&D which needs to be filled to ensure the industry's long term competitiveness and ensures horticulture contributes to DEFRA's 2030 Food Strategy.
- **Staff recruitment and retention** is a key issue. The industry needs to continue to attract a good supply of skilled operators into businesses, and also be able to attract and retain the best graduates into management development programmes. The industry is also very dependent upon the supply of good skilled and semi-skilled migrant labour, especially from the CEEC region. It is vital that recent government policy towards immigration does not prevent the industry from accessing the labour that it requires.
- A number of specific regional issues arose around regional representation and delivery, RDPE, regional infrastructure, planning, flood and coastal defence and water resources.
- The move away from Regional Development Agencies (RDAs) to Local Enterprise Partnerships (LEPs) presents both an opportunity and a threat to the horticultural sector. It is likely to make cross border working more straightforward (especially in the Lincolnshire, Cambridgeshire and Norfolk fens) but there will undoubtedly be budgetary and delivery challenges. A strong voice for horticulture on a future Lincolnshire LEP seems more assured than for other counties where the size and scale of activities may mean they do not receive full representation, and the regional industry will need to work together to ensure effective engagement with the new LEP structures.
- It was felt a stronger voice for Horticulture through a 'horticultural forum' might be of benefit; a strengthened Lincolnshire Agricultural and Horticultural Forum might be one such medium, which has proved to be a very useful initiative between local authorities and industry. Several stakeholders suggested the promotion of Spalding as a 'national centre of excellence for horticulture.'
- There was strong feedback the current regional delivery structure for the Rural Development Programme for England (RDPE) should be maintained until 2013, even if other regional structures are dismantled. Changing the delivery basis part way through the programme was thought to be counter-productive.

- The principle focus of RDPE funding from the potato and horticultural industry's perspective should be on resource use efficiency – specifically around water resource management (and investment in storage, rainwater harvesting and distribution systems), energy efficiency and energy from waste.
- The importance of the congested A16 and A17 trunk roads and the lack of dual carriageway roads in South Holland were noted. There was some support in South Holland for the 'rail head' concept around Deeping St Nicholas. Effective lobbying by the industry in South Holland for improved transport links remains a priority.
- Most businesses encountered few if any problems with planning and local authority engagement. Effective engagement with local authority planning departments is important if this positive trend is to continue. The industry appreciates the acknowledgement and value placed on the sector by the key local authorities (e.g. South Holland District Council) but it is suspected that in other parts of the region there may indeed be some issues not highlighted by this report.
- Flooding and coastal defence is a specific sub-regional issue in South Holland where there is concern that economic value of the Grade 1 farmland might not fully be recognised in the cost / benefit analysis of future coastal defences. The productive capacity of the region is recognised in this report and it is vital that the industry continues to lobby the Environment Agency and other stakeholders effectively to ensure that the true value of the region is recognised in future plans.
- Investment in winter storage is a priority for those who can access winter abstraction points and public policy should encourage further investment in sustainable irrigation infrastructure. The lack of irrigation by businesses in parts of South Holland (such as on the Holbeach Marsh) is a concern to those businesses who fear they will lose competitiveness to others who have water.

2 Terms of Reference

Bidwells were invited by the NFU to Tender for a Project Entitled "Horticulture East Midlands" in October 2009. The Project Steering Group comprising Mark Tinsley, David Piccaver, Sarah Pettitt and Simon Fisher appointed Bidwells as contractors in November 2009. Bidwells prepared a funding application to the East Midlands Development Agency (*emda*)¹ in December 2009 and the project received approval in March 2010. The original tender documentation is set out in Appendix 1.

The deliverables of the study, as confirmed by *emda* are to:

- Identify the location, structure, size and nature of fresh produce production in the region;
- Identify the volumes and value of that production at farm gate and value added stages (processing, packing and retail);
- Identify the key issues that will need to be addressed in the next 15 years and build on those facts and figures to inform the industry on future strategies.

The baseline data will be presented in a format that can be readily updated in the future and be of continued value to both the industry and regional policy makers in considering cost-benefit analysis the effects of future policy changes or stimulus effects on the industry.

The study will cover potatoes, field scale vegetables and salads; bulbs and outdoor flowers; protected crops; and hardy nursery stock. The emphasis of the project is on production, processing and packing with the retail element is a desk-based exercise to project the GVA from the region in a retail context.

In addition, the steering group have set the following broader objectives for the assignment.

- Raise robust statistics on value and impact of industry;
- Better assess the current and future economic viability of the East Midlands industry;
- Look at the longer term actions needed to deliver the 2030 food security vision;
- Assess and develop future strategy and investment requirements;
- Inform regional strategy such as the Regional Economic Strategy and Regional Investment Plan
- Inform RDPE regional policy;

¹ East Midlands Development Agency (*emda*) is one of nine Regional Development Agencies in England, set up in 1999 to bring a regional focus to economic development

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

- Better contribute to the food security debate;
- Inform policy on key issues and threats such climate change, sea level rise, and labour availability;
- Provide information to promote the industry and identify future training and skill needs.

3 Introduction

The horticultural sector is one of the most diverse in UK agriculture, representing a large spread of growers; from highly intensive glasshouse operations to more extensive fruit and vegetable cultivation. Its contribution to UK GDP is in the region of £2.5bn, underlining its importance in job creation, particularly in smaller rural and local economies.

Potatoes are sometimes considered separately in statistical data, but for the purposes of this project are included within the definition of "horticulture."

A formal definition is as follows:

***Horticulture** is the industry and science of plant cultivation including the process of preparing soil for the planting of seeds, tubers, or cuttings. Horticulturists work and conduct research in the disciplines of plant propagation and cultivation, crop production, plant breeding plant biochemistry and plant physiology. The work basically involves fruits, berries, nuts, vegetables, flowers, trees, shrubs, and turf.*

We have used the nomenclature preferred by the Horticultural Development Company (HDC) to segment the industry as follows:

- Potatoes
- Bulbs and outdoor flowers
- Field vegetables – split between alliums, brassicas, curcubits, herbs, legumes, salads, roots and other
- Hardy nursery stock (HNS)
- Protected crops
- Soft fruit
- Top (tree) fruit

The sector has undergone a marked transformation in recent decades, particularly the last 10-15 years. Relatively low level support from the Common Agricultural Policy (CAP) has led to increasing professionalism amongst producers, as the dominance of a few major retailers means that point-of-sale margins are maintained, squeezing those at the farm gate. The top four major retail brands in the UK comprise approximately 80% of the domestic market. Through increasingly globalised value chains and

access to low cost supplies, retailers exert pressure on farmers' bottom lines, intensifying the need for innovation.

Some still perceive UK horticulture to be an industry comprised of predominantly low-level technology, yet this is clearly not the case. The number of smaller and less specialist producers is falling as, in line with the trend in Europe's horticultural powerhouses, the industry is becoming increasingly 'hi-tech', utilising the latest machinery and production methods. To be able to operate in a fast moving and competitive marketplace requires the entire industry to be responsive and adaptable, implementing the necessary research and development (R&D) mechanisms. The competition from imported produce will continue to weigh on British growers, underscoring the need for clear and relevant R&D and communication channels at each level of stakeholder engagement. Likewise, attracting highly skilled workers and graduates to horticulture needs addressing, given the often misguided depiction of a stagnant industry.

The challenges facing UK horticulture as a whole are magnified in many production hubs throughout the country. Counties such as Lincolnshire in the East Midlands are responsible for producing large volumes of the nation's fruit, vegetable and ornamental goods. Needless to say, the contribution of horticulture to local economic and social wellbeing in many parts of the East Midlands is comparatively high vis a vis the rest of the country.

Similar studies conducted on a UK wide basis have raised many pertinent issues, including skills and recruitment and the need for greater horizontal and vertical collaboration. It is hoped that this *emda* project can add further to such findings, as well as highlighting more regional issues and concerns.

This report is a summary and evaluation of our findings.

4 **Approach**

The project approach was as follows:

- A survey of all primary producing and supply chain businesses in the region to fill in gaps in the quantitative data and to gather feedback on industry issues;
- A series of focus groups were held to explore in more detail industry issues from both a grower and supply chain perspective;
- Regular meetings were held with the NFU Steering Group to inform project progress and development;
- This written report has been produced for *emda* and interested stakeholders;
- An industry dissemination event is being held to launch this report in October 2010.

5 Primary Production

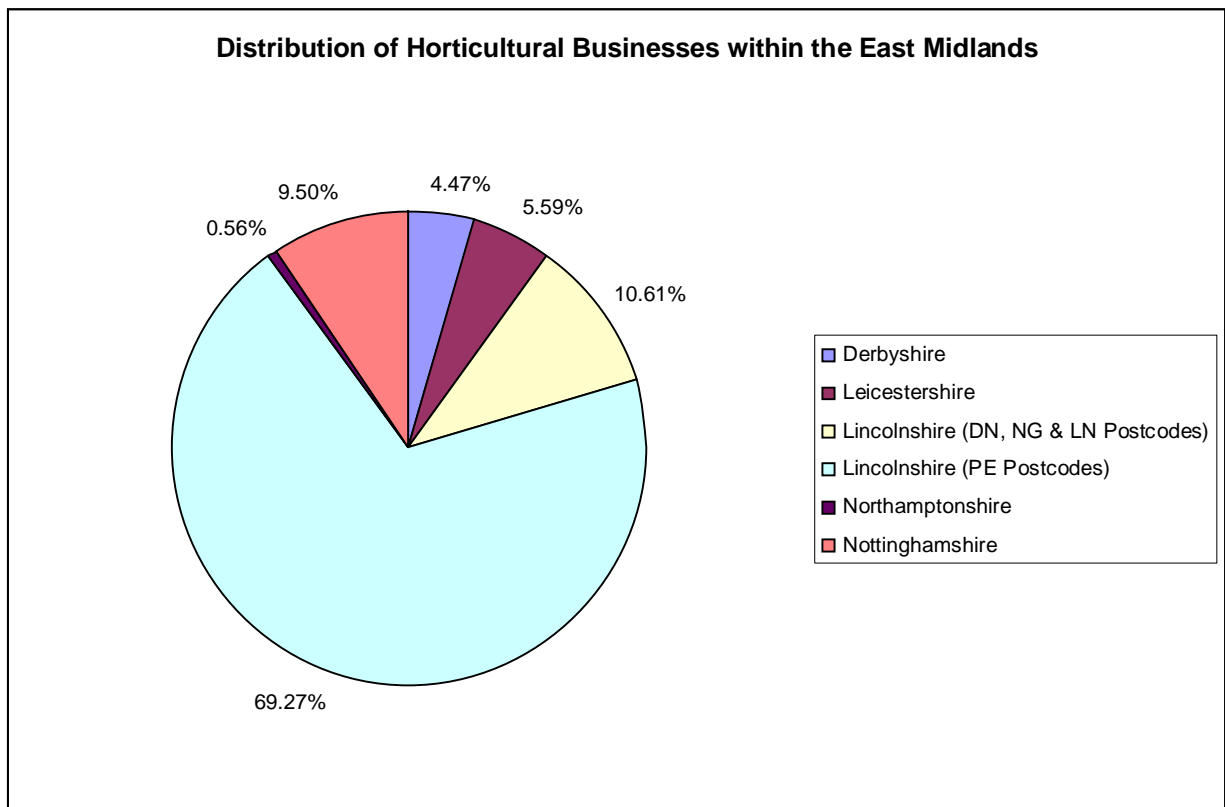
5.1 Survey Findings

5.1.1 Survey Outline

The survey of growers can be found in appendix 2. This survey was established to assess the ongoing changes in the industry and form a foundation for value estimation. The survey was sent to growers via the Horticultural Development Company's (HDC) grower database. The survey was sent to 343 growers by the HDC. Additional growers received the survey via the National Farmers Union.

5.1.2 Location of East Midlands Horticultural Businesses

Chart 1 - East Midlands Horticultural Businesses by County



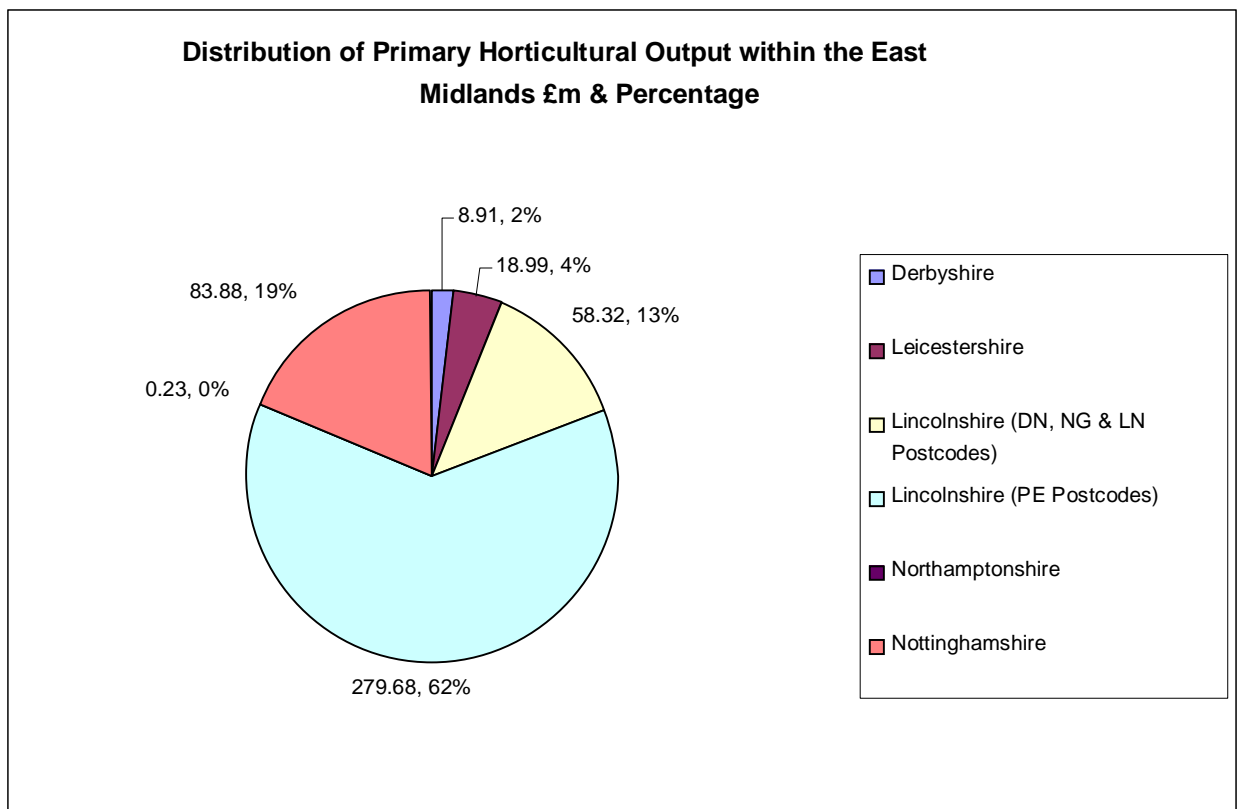
Source: Bidwells analysis of survey data and HDC information

Chart 1 clearly shows the dominance of the Holland district of Lincolnshire in the East Midlands Horticultural industry with 69% of businesses located here. The Nottinghamshire region accounts for a disproportionately

high level of the East Midlands primary horticultural output. Nottinghamshire has 9.5% of businesses but produces 18.6% of the output. The PE postcode region of Lincolnshire produces 62.1% of the output despite having 69.3% of the businesses. This shows the smaller nature of some of the businesses in the PE postcode area.

5.1.3 Distribution of Primary Horticultural Output within the East Midlands

Chart 2 – East Midlands Primary Horticultural Output by Location



Source: Bidwells analysis of survey data and HDC information

The PE postcode area of Lincolnshire accounts for over half the regions horticultural output at nearly £280m. There is significant production in Nottinghamshire at nearly £84m and significant production in the DN, NG and LN postcodes of Lincolnshire at £58m.

5.1.4 Horticultural Crop Area and Value

Chart 3 – Horticultural Crop Area in the East Midlands 2005-2009

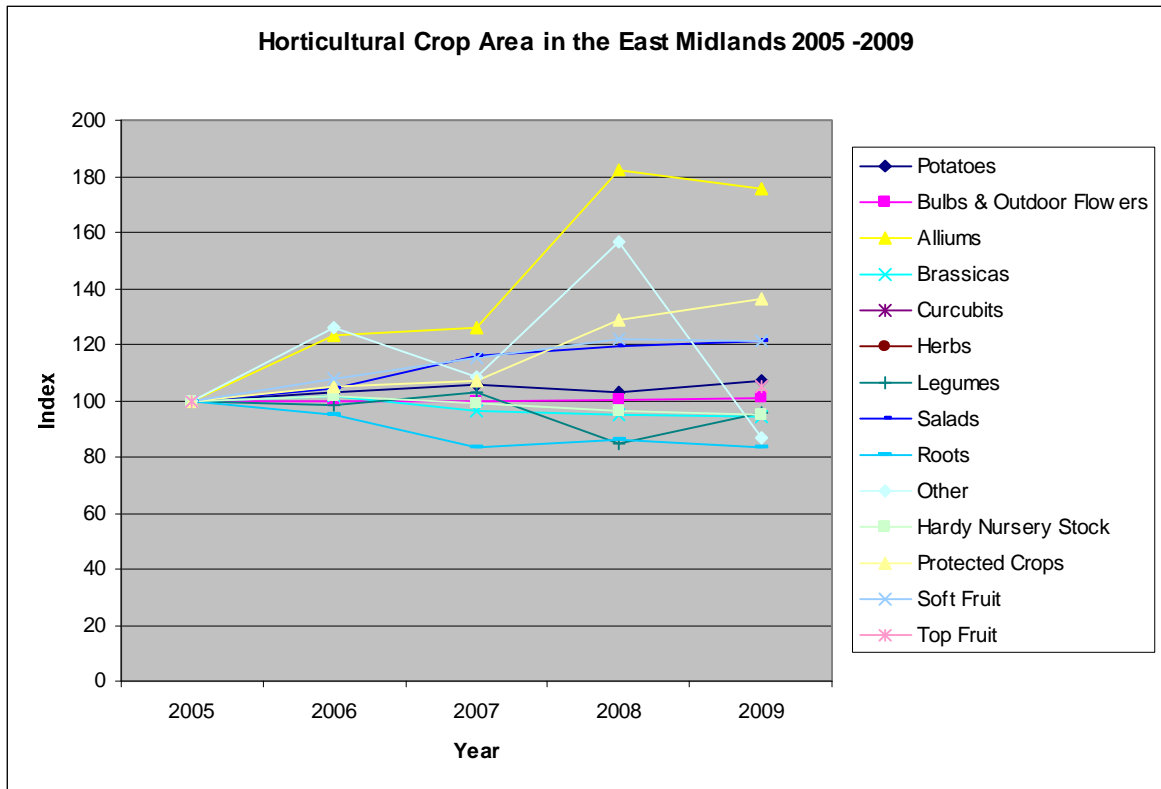


Table 1 – Estimated Crop Areas in the East Midlands by Crop Type

Estimated Horticultural Crop Areas in the East Midlands

Year	2005 ha	2009 ha	Change in period
Potatoes	17,250	18,522	+7.4%
Bulbs & Outdoor Flowers	1,630	1,690	+1.4%
Alliums	1,180	2,070	+75.4%
Brassicas	22,660	21,280	-6.1%
Curcubits	n/a	n/a	n/a
Herbs	n/a	n/a	n/a
Legumes	14,980	14,280	-4.7%
Salads	5,970	7,240	+21.3%
Roots	5,330	4,450	-16.5%
Other	230	200	-13.0%
Hardy Nursery Stock	663	628	-5.3%
Protected Crops	83	113	+36.1%
Soft Fruit	1,320	1,600	+21.2%
Top Fruit	190	200	5.3%
Total	67,986	72,273	+6.3%

The area of Salads, Alliums and Protected crops show the greatest increase in the period from 2005 to 2009. The area of salads nearly tripled in the period. The area of Hardy Nursery Stock, Roots, Legumes and Brassicas fell during the period. The greatest fall was 16.5% in the area of Root crops. With the exception of Bulbs and Outdoor flowers, the change in area was significant for all crops over the 5 seasons.

Detailed tonnage information was not collected during the survey exercise, but using some industry standard data, the East Midlands was responsible for the production of the following volumes of potatoes and fresh produce (based on 2009 areas):

- Potatoes - 880,700 tonnes per annum
- Bulbs - 14,300 tonnes per annum
- Alliums - 68,300 tonnes per annum
- Brassicas - 255,400 tonnes per annum
- Legumes - 57,000 tonnes per annum
- Top Fruit - 6,000 tonnes per annum
- Soft Fruit 32,000 tonnes per annum

Grow: EM

The Horticultural Industry in the East Midlands
September 2010



The breakdown of the crop areas between the different local authority regions is demonstrated by the following 2007 DEFRA census data, which confirms the trends from the survey data:

Table 2 - Horticulture - Area data from 2007 Defra census²

Local Authority or Unitary	Vegetables in open	Peas & Beans	Salad	Fruit	HNS	Bulbs/ Flowers	Glass/ plastic	Total Horticulture	Potato
South Derbyshire	0.4%		0.6%					0.4%	1.9%
Nottinghamshire	11.1%	4.1%	15.0%	42.1%	11.1%			11.3%	12.8%
Bassetlaw	6.9%		8.5%					6.5%	5.8%
Newark/Sherwood	2.7%	4.0%	4.2%	29.8%				3.1%	3.7%
Gedling	1.3%		2.0%					1.2%	1.6%
Leicestershire	0.3%		0.3%	11.4%	36.1%			1.2%	2.8%
Northamptonshire				19.9%				0.5%	1.2%
Lincolnshire - County	88.0%	95.4%	83.7%	22.3%	33.9%	98.4%	72.7%	86.2%	79.4%
Boston	26.6%	16.7%	32.2%				20.9%	24.5%	11.1%
East Lindsey	28.5%	49.4%	16.5%	6.3%				26.1%	15.8%
North Kesteven	5.3%		4.6%					6.4%	8.4%
South Holland	22.6%	14.5%	27.3%	6.5%	10.4%	64.9%	40.1%	24.6%	30.1%
South Kesteven	0.6%		0.6%					0.6%	
West Lindsey	4.4%	7.8%	2.4%					4.1%	9.7%

² % area of region in brackets apart East Midlands figure which is a % of English area

Grow: EM

The Horticultural Industry in the East Midlands
September 2010



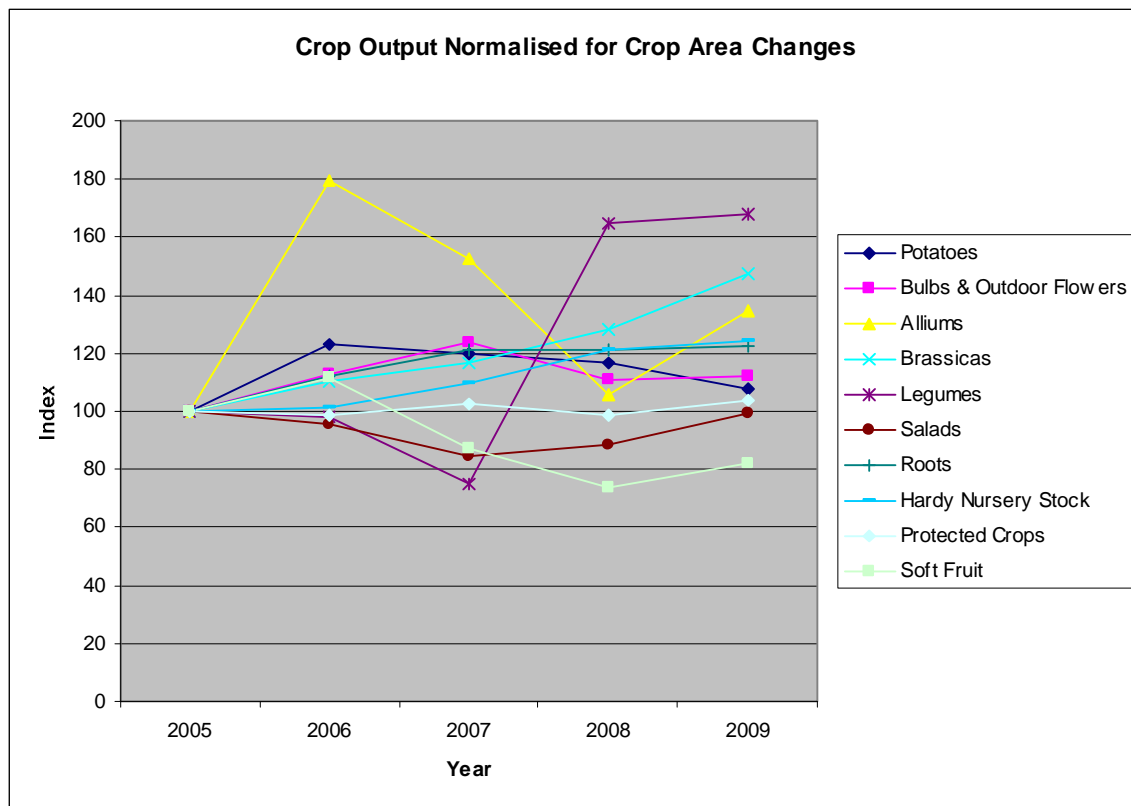
Table 2 confirms that in terms of production area, the East Midlands represents 26% of the total English horticultural area at over 38,000 ha of crops. Lincolnshire alone represents 86% of regional area of horticultural crops - or 22% of the English area.

In field vegetables the importance is even more pronounced – 32% of the English crop area is in the region, with 28% in Lincolnshire. Lincolnshire also represents 40% of the national bulb and flower area.

The area is also dominant in potato production – 17% of the English crop is grown in the region; with the majority in Nottinghamshire (13% of the East Midlands area) and Lincolnshire (79% of the regional area). South Holland accounts for 30% of regional production area and 5% of the English area.

Moving on to industry value, the change in the value of primary output (as determined by the survey exercise) is set out in chart 4 below.

Chart 4 – Change in the Value of East Midlands Primary Horticultural Output 2005-2009 per hectare



Grow: EM

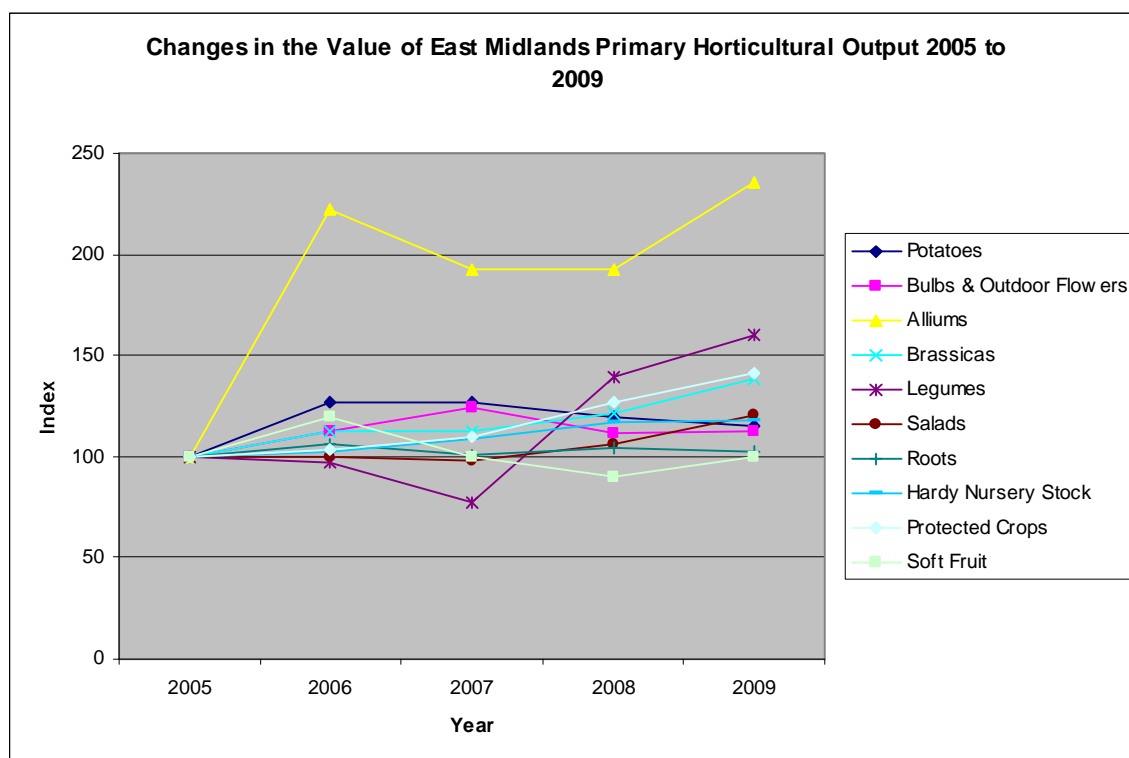
The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

Table 3 – Changes in the Value per ha of East Midlands Horticultural Output

Change in Value per ha and in Total 2005 - 2009	Change in Value per ha	Change in Total Value
Potatoes	+8%	15%
Bulbs & Outdoor Flowers	+10%	+12%
Alliums	+24%	+218%
Brassicas	+47%	+38%
Curcubits	n/a	n/a
Herbs	n/a	n/a
Legumes	+68%	+60%
Salads	4%	+26%
Roots	+23%	+3%
Other	n/a	n/a
Hardy Nursery Stock	+24%	+17%
Protected Crops	+4%	+42%
Soft Fruit	-18%	-1%
Top Fruit	n/a	n/a

Chart 5 – Change in the Total Value of East Midlands Primary Horticultural Output 2005-2009³



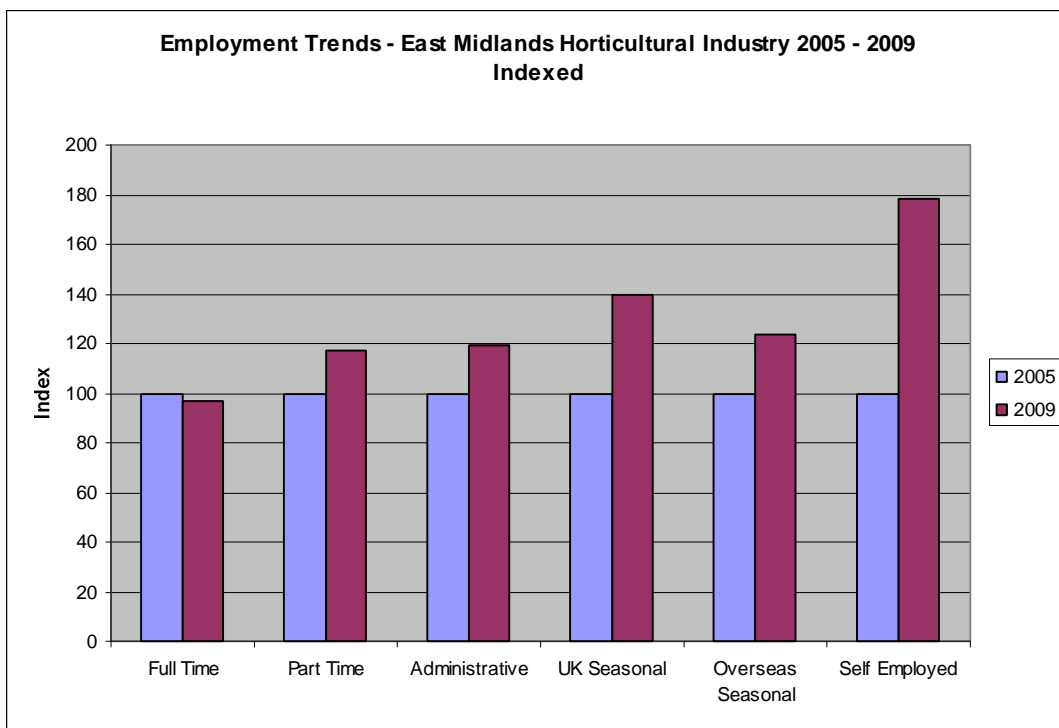
Over the period from 2005 to 2009 the output per unit of Soft Fruit fell. All other crops reported an increasing output per unit area. The most substantial increases were in Legumes (mainly Vining Peas), Brassicas and Alliums. The greatest level of volatility is in the Legume and Allium categories. Protected crops show the lowest volatility. Salads and Potatoes are showing a relatively stable output on a per hectare basis. It should be noted that the figures represent turnover not profit. It is likely that the output gains were substantially offset by input cost increases, as a result profits are unlikely to have risen in line with turnover. For many crops there will also have been little price movement over the period, so it is likely efficiency improvements are also reflected in the above figures.

³ Not all crops are shown in charts 3 and 4 due to limited datasets or high errors.

5.1.5 Employment Trends

Employment trends are set out in Chart 6 below. It is clear that the sector supports a wide skill base within the region but one that is increasingly using its labour resources more effectively, with a greater reliance on flexible resources.

Chart 6 – Employment Trends



Between 2005 and 2009 the overall employment level on the surveyed farms increased. Whilst there was a small drop in the number of full time employees (3%) there were significant increases in the number of self employed (79%) and UK Seasonal staff (40%). Part time, administrative and overseas seasonal staff also increased by approximately 20%. For every seasonal worker from the UK there are more than 5 seasonal workers from overseas. The number of employees is estimated in table 4.

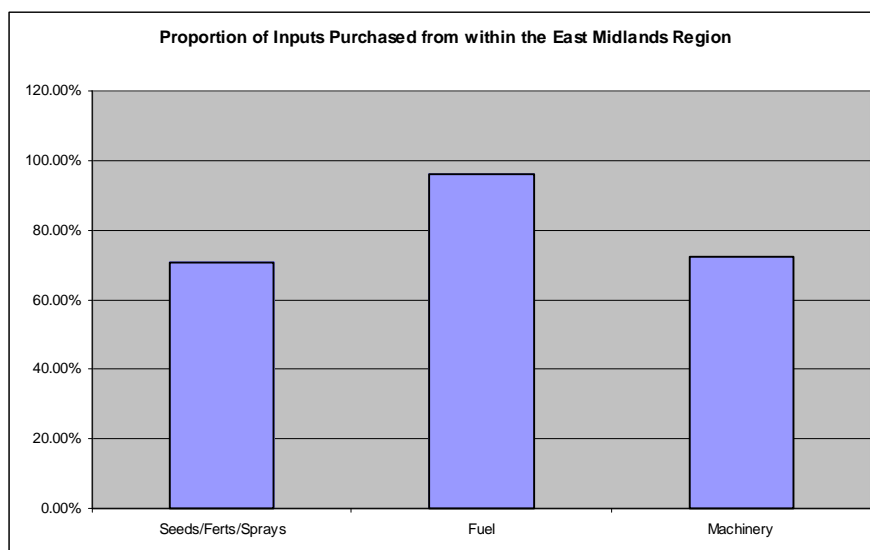
Table 4 – East Midlands Horticulture Industry Employment Levels 2005 and 2009

	2005	2009
Full time	2,632	2,544
Part time	504	592
Administrative	368	440
UK Seasonal	1,632	2,280
Overseas Seasonal	9,600	11,856
Self employed	112	200

5.1.6 Proportion of Inputs Purchased within the East Midlands Region

Horticultural businesses are substantial users of inputs, especially seeds, fertilisers, agrochemicals (sprays) and fuel (energy). It is difficult to estimate the amount per business (as there is such diversity amongst horticultural businesses) but it is interesting to note the majority of these are procured within the region:

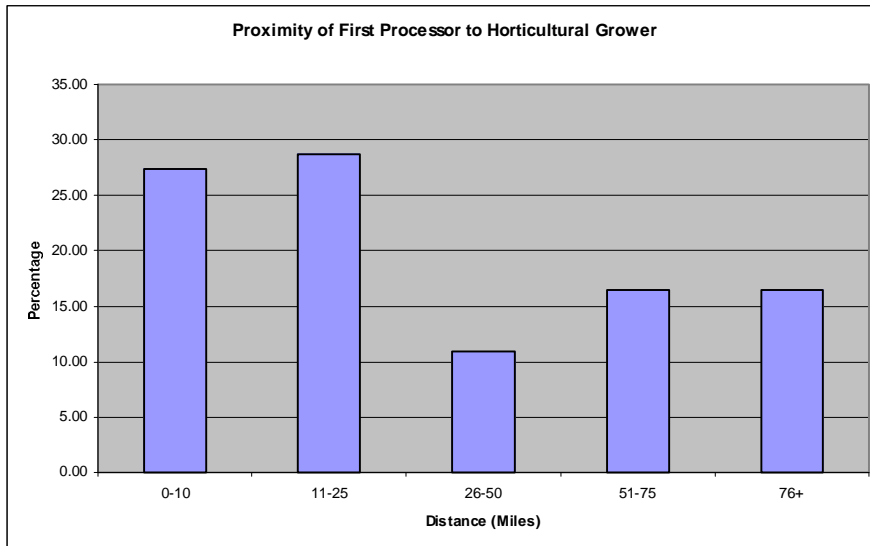
Chart 7 - Proportion of Main Grower Inputs Purchased in East Midlands



Over 70% of direct crop inputs, machinery and fuel are procured in the region.

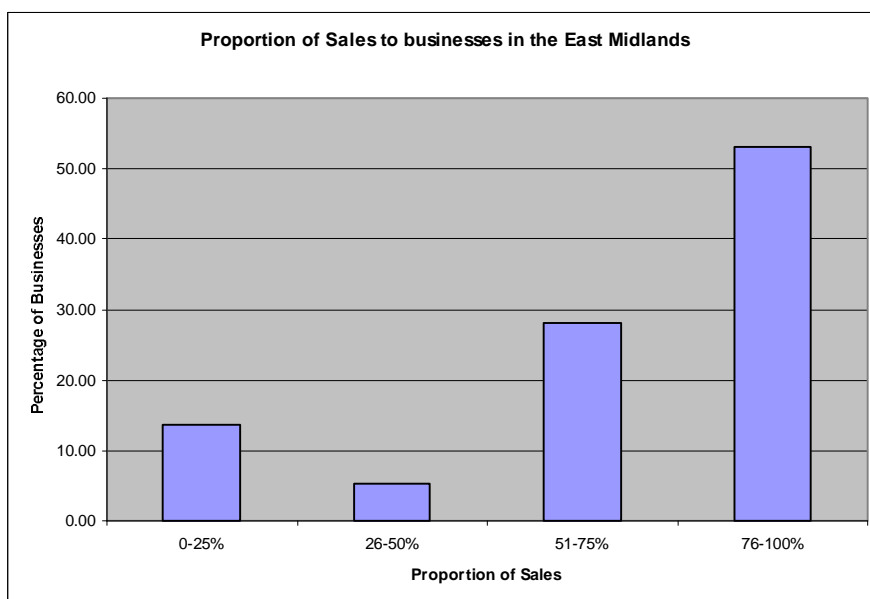
5.1.7 Sales of Primary Horticultural Produce in the East Midlands

Chart 8 – Proximity of First Processor to Horticultural Grower



Over 50% of horticultural produce produced by growers in the region has a first customer within 25 miles of the production site. Only 34% is processed more than 50 miles away from the grower. However even produce processed more than 50 miles away may still remain within the East Midlands.

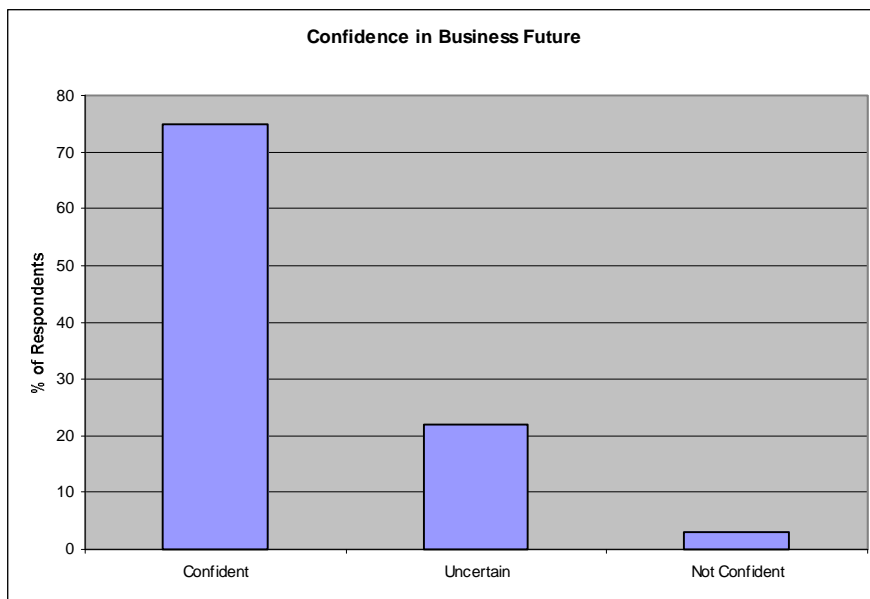
Chart 9 – Proportion of Sales to Businesses in the East Midlands



The proportion of growers' horticultural sales by value to businesses within the East Midlands is very high, with over 50% of growers selling over 76% of their production to businesses within the region.

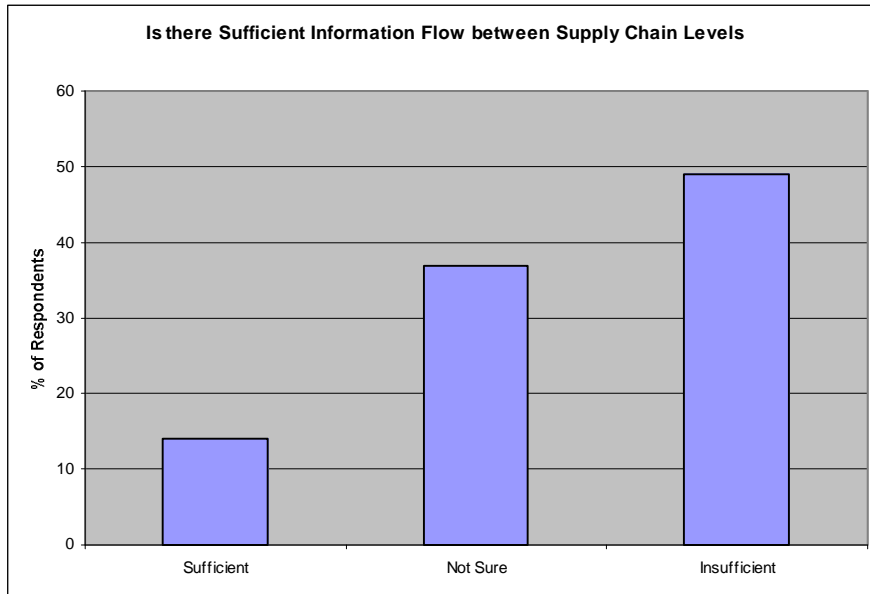
5.1.8 Grower Confidence and Supply Chain Opinions

Chart 10 – Grower Confidence in Business Future



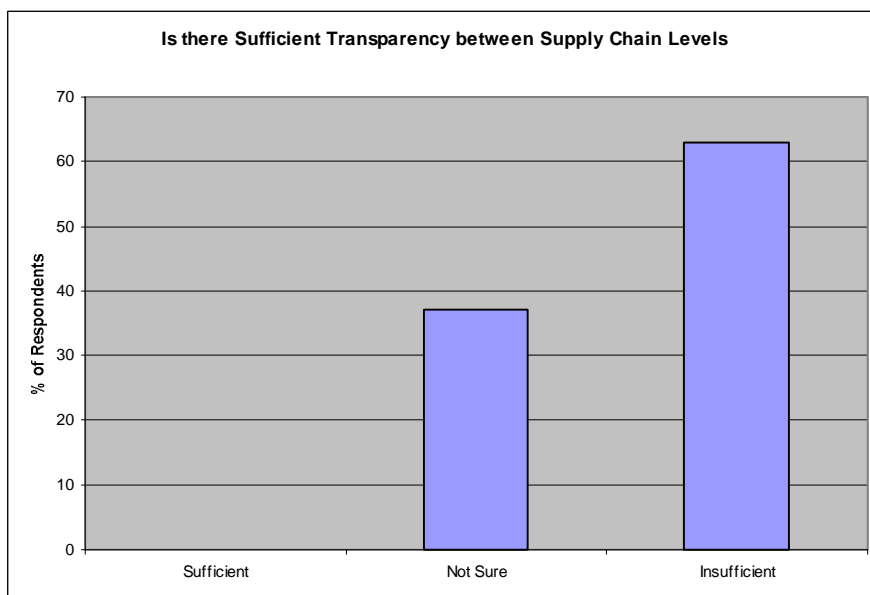
There is a high level of grower confidence in the future of their businesses. Less than 5% are unconfident whilst there is a significant 22% who are uncertain. Overall this is indicative of a confident industry but one with issues to resolve. Brassica and Potato growers were most likely to lack confidence.

Chart 11 – Grower Opinion of Information Flow between Supply Chain Levels



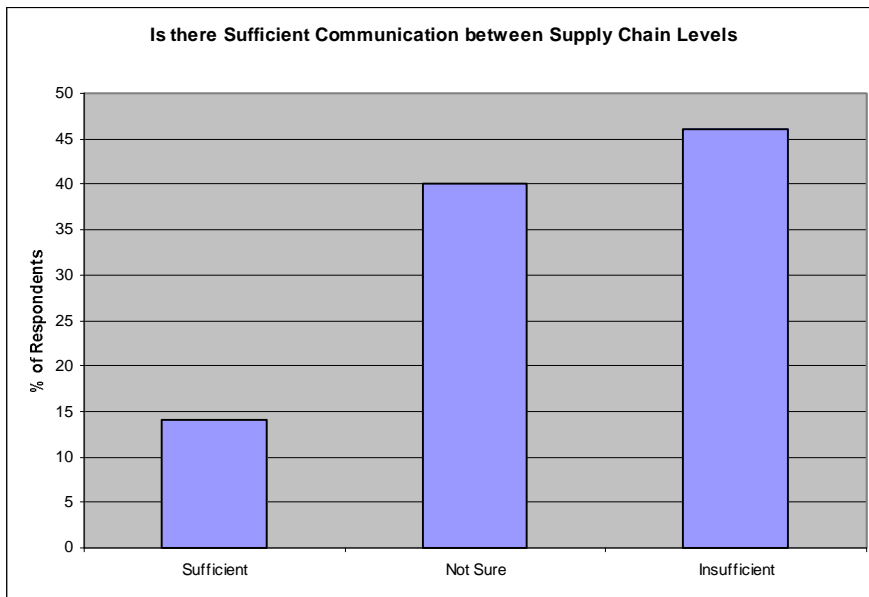
Whilst 49% of growers believe that there is insufficient information flow between supply chain levels, only 14% believe the flow is sufficient. There are a significant number of growers who are unsure. There was no significant difference between sectors.

Chart 12 – Grower Opinion of Transparency between Supply Chain Levels



No growers believe that there is sufficient transparency between supply chain levels. Whilst 37% are unsure, the majority, 63% believe the level of transparency is insufficient. Growers would like to see more transparency to give clear market signals.

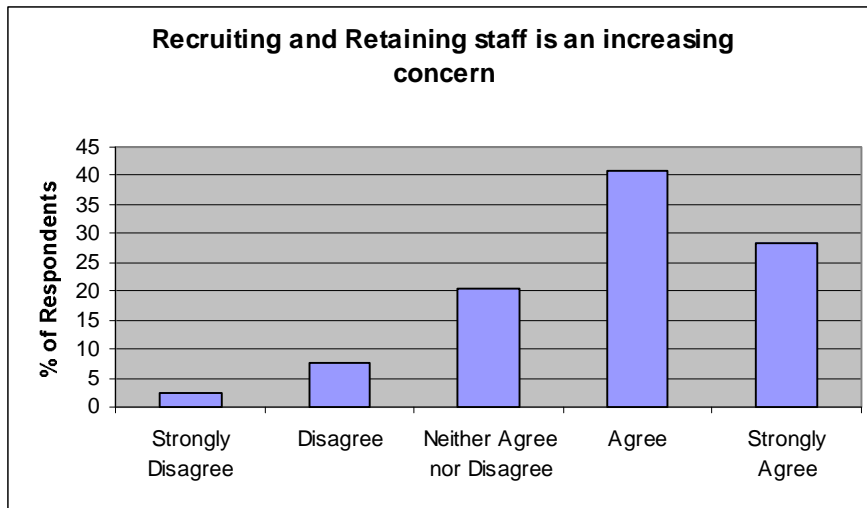
Chart 13 – Grower Opinion of Communication between Supply Chain Levels



Less than 15% of growers believe the level of communication in the supply chain is high enough. Despite just over 45% believing the level of communication is insufficient there is a large number of growers who are undecided. It is likely that there is some linkage between chart 11 and chart 12 as transparency is linked to communication.

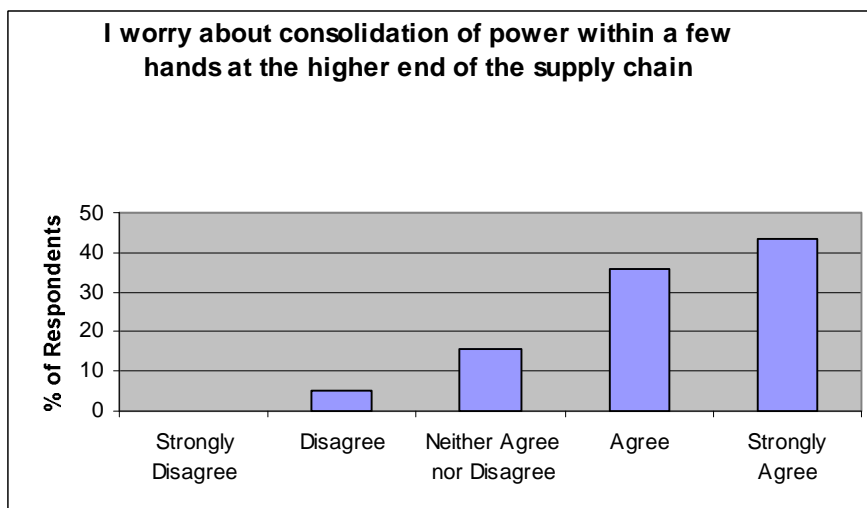
5.1.9 Challenges Facing Growers' Businesses

Chart 14 – Recruiting and Retaining Staff



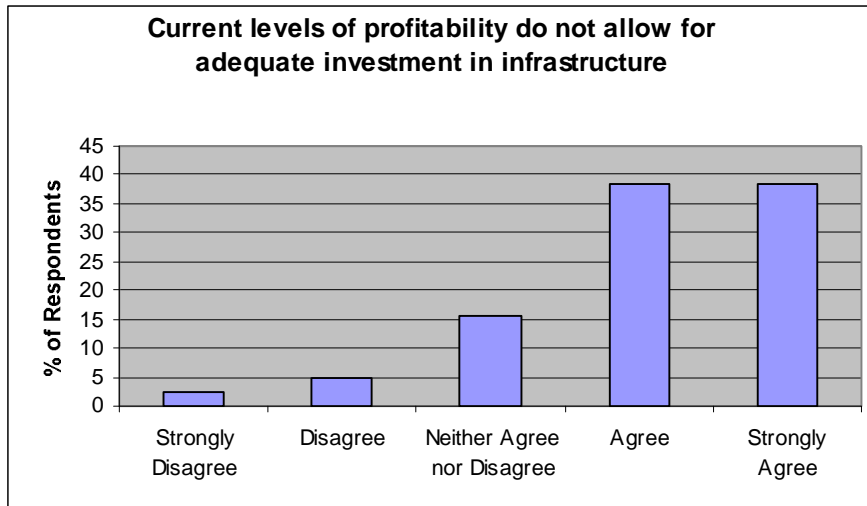
Recruiting and retaining staff is an area of concern to nearly 70% of businesses, with nearly 30% strongly agreeing with this being a concern. Only 10% of growers were not concerned by this issue.

Chart 15 – Consolidation of Power



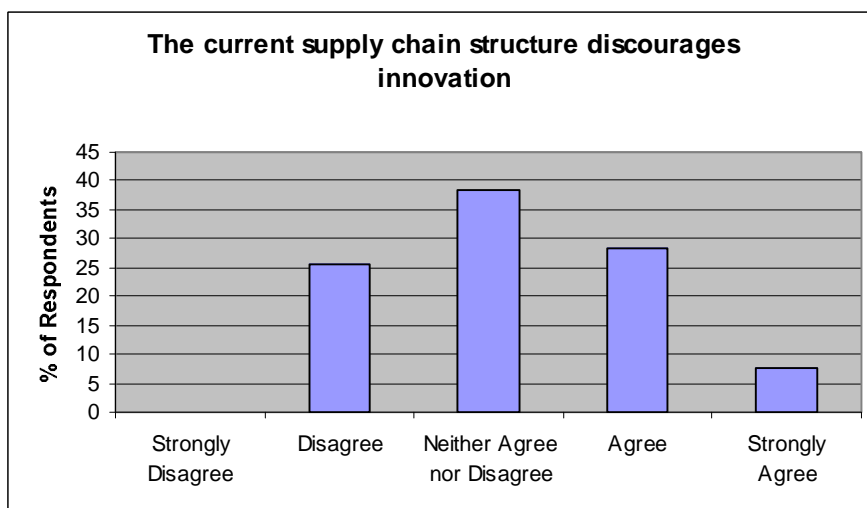
Only 5% of growers are not concerned by consolidation at the higher end of the supply chain. This is considered an issue by 80% of growers.

Chart 16 – Profitability and Investment



77% of growers agree that current levels of profitability do not allow for adequate investment in infrastructure. Less than 10% believe the level of profitability is adequate.

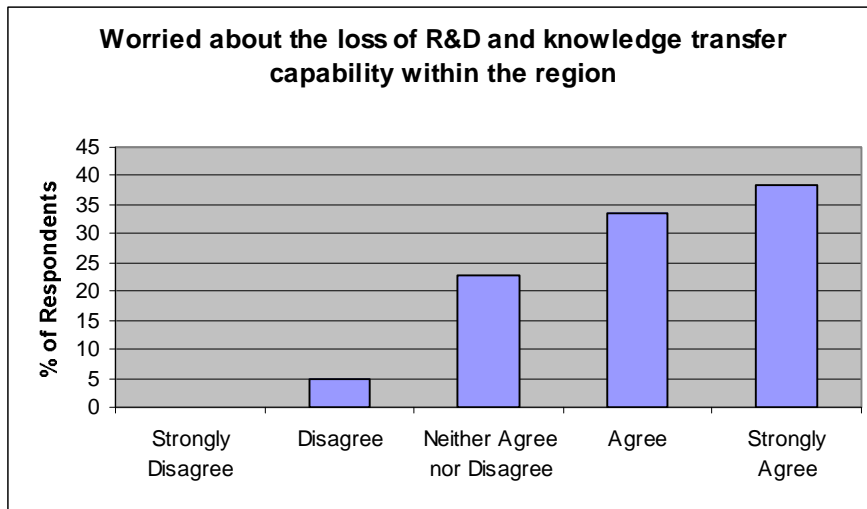
Chart 17 – Current Supply Chain Structure



Approximately 35% of respondents believe the current supply chain structure discourages innovation. This compares with approximately 25% not believing that the structure discourages innovation. This is quite an

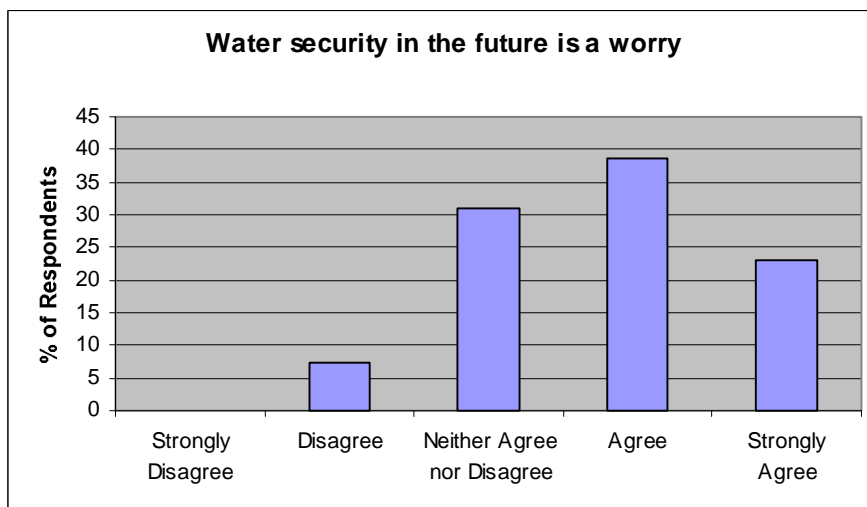
even split. There are no significant differences between sectors within horticulture although business size is likely to be a factor – larger businesses with more resources can potentially dedicate more time to innovation.

Chart 18 – Loss of R&D and Knowledge Transfer



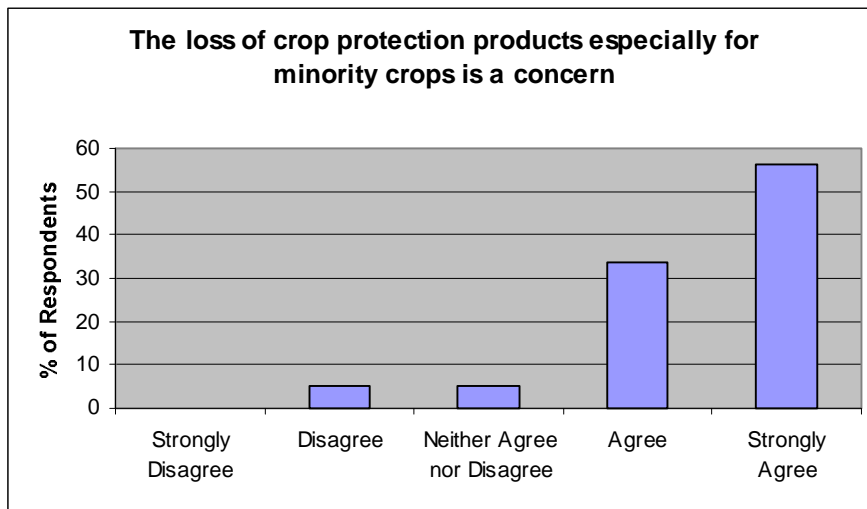
Only 5% of growers are not concerned by the loss of R&D and knowledge transfer capability within the region. Over 70% are worried about the loss whilst the remainder neither agree nor disagree.

Chart 19 – Water Security



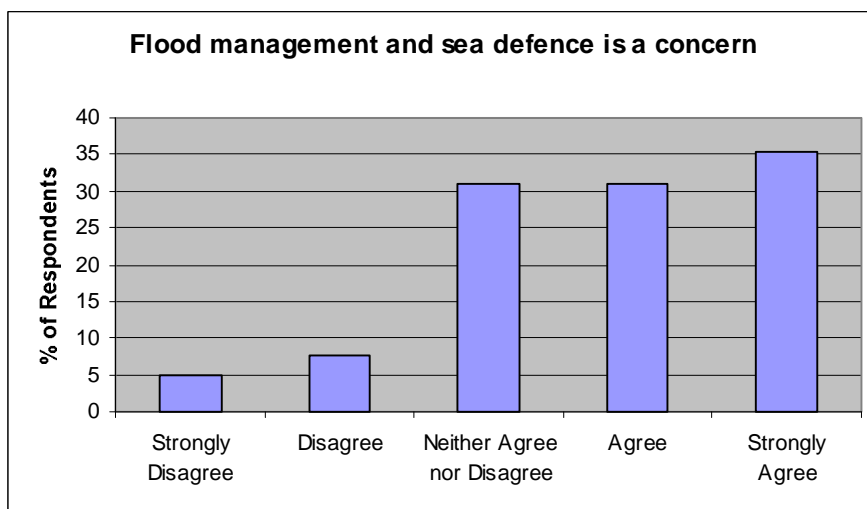
More than 60% of growers are worried about future water security. Only 7% of growers do not see this as a worry. A significant number of growers neither agree nor disagree that water security is an issue. For those who see water as a significant it is either because they have a supply which they are concerned about the security of, or they are in an area where irrigation is limited due to saline water (e.g. South Holland)

Chart 20 – Loss of Crop Protection Products



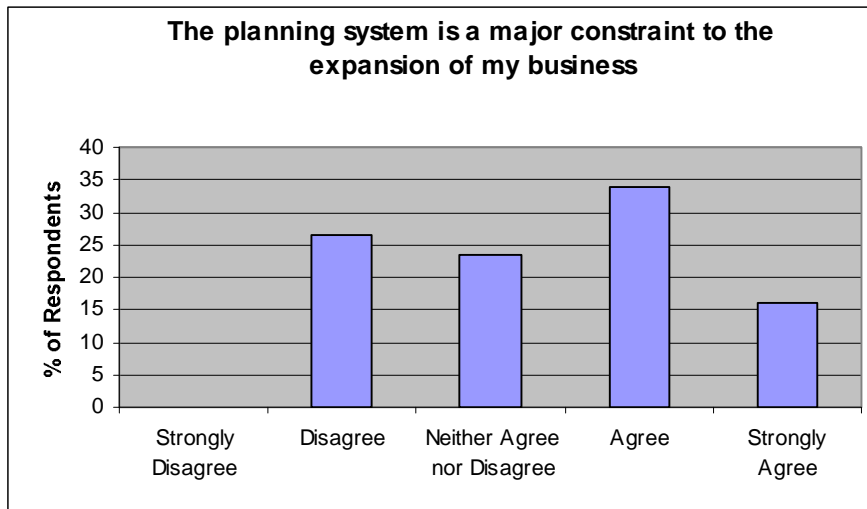
This loss of crop protection products, especially for minority crops is a concern to most growers. Only 10% were either unconcerned or undecided.

Chart 21 – Flood Management & Sea Defences



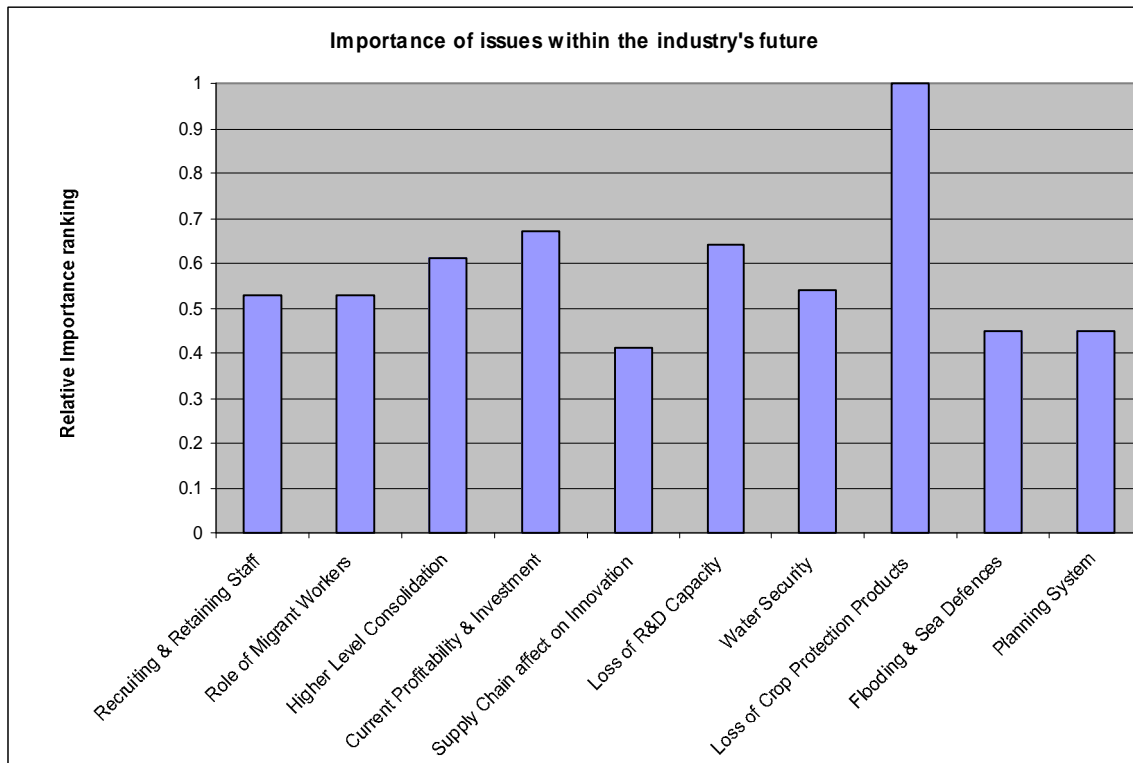
Flood management and sea defences are a concern to 65% of growers. This probably reflects the dominance of horticulture within the South Holland region of Lincolnshire. Sea defences are not likely to be seen as an issue inland, however freshwater flooding may be an issue for some businesses.

Chart 22 – Planning System and Business Expansion



The planning system is a variable constraint to business. Whilst it is not a constraint to 26% of businesses and 24% are undecided, approximately half of businesses see this as a constraint.

Chart 23 – Relative Importance of Industry issues



Growers have indicated that the single most important issue raised was the loss of crop protection products. The second and third most important issues were current profitability being insufficient for investment and loss of R&D and Knowledge transfer capacity respectively.

In order of importance the issues are:

1. Loss of Crop Protection Products
2. Current Profitability and the Impact on Investment
3. Loss of Regional R&D Capacity
4. Consolidation at higher levels of the Supply Chain
5. Water Security
6. Role of Migrant Workers

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

7. Recruiting and Retaining Staff
8. Flooding & Sea Defences
9. Planning System
10. Impact of Supply Chain Structure on Innovation

The importance of crop protection products probably relates to the timing of the survey and focus groups, given the issue is very topical at the current time. This could be interpreted as showing the thinking of the industry is quite short-term and "reactionary" – which is challenge when trying to get the industry to focus on medium term strategy and policy issues.

5.2 Valuation of the East Midlands Primary Horticultural Output

Valuation of the primary horticultural output is based on the survey data collected. The dataset was compared and contrasted with other data sources. Adjustments were then made to increase the accuracy of the data where comparative data indicated unusual results.

Comparative data included:

- HDC Levy Collection for the East Midlands Region;
- June Census Data;
- Potato Council planting and production data;
- Farm Business Survey Results.

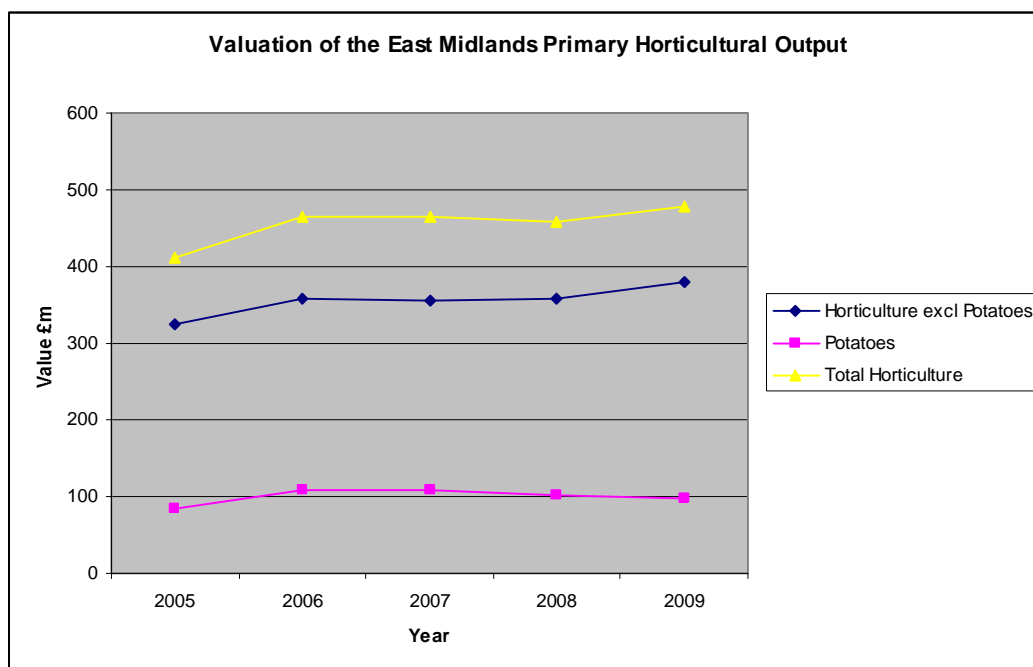
The valuation is shown in table 5 below and graphically in chart 24.

Table 5 – Valuation of the Primary Horticultural Output of the East Midlands Region

Valuation of the Primary Horticultural Output of the East Midlands Region						
	2005	2006	2007	2008	2009	
	£	£	£	£	£	
Horticulture excluding Potatoes	325,325,320	356,925,290	356,298,830	357,100,660	380,774,940	
Potatoes ⁴	84,882,120	107,836,320	107,812,125	101,434,041	97,510,993	
Total Horticultural Industry	410,207,440	464,761,610	464,110,955	458,534,701	478,285,933	

⁴ This is calculated from data supplied by Potato Council Ltd.

Chart 24 – Valuation of the East Midlands Primary Horticultural Output



The valuation of the East Midlands Primary Horticultural output clearly shows steady growth in the overall output of the region during the five year period with the most significant increases between 2005 and 2006. Within the Horticulture sector, Potatoes showed a more stable output with a smaller increase than was seen within other horticultural crops.

Nationally the farm gate value of the horticultural sector is about £2.6 billion in England about £3.1 billion in the United Kingdom. After the East of England, the East Midlands region is the second most important in the United Kingdom in terms of potato and horticultural output. Potatoes and horticulture are also very important to the East Midlands in terms of total agricultural output, representing over 20% of the region's agricultural output as opposed to 17% of agricultural output across England as a whole.

Although the value of output associated with the agricultural sector is higher than that associated with the horticultural sector, the value-added per unit of output is higher for horticulture (45%) than for agriculture. This is because agriculture, while a large sector, 'recycles' much of its value through what is called 'intermediate consumption' (i.e. fertilisers are used to grow crops which are then converted into meat or milk). In comparison horticulture 'creates' much more of its value; in the simplest of terms growers do this by capturing the sunlight and converting it into marketable crops - a short, efficient and highly productive process. Therefore, horticulture is important to the East Midlands economy because of its productivity and not just its size.

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

The horticultural sector represents a **very diverse group of growers with a range of differing financial performances at individual business level**. The sector includes highly intensive glasshouse operations and others producing top fruit and vegetables on a field scale.

Our survey exercise did not ask detailed questions on business profitability and it is not possible to isolate regional performance from the available data, but looking at national farm business income (FBI) from the last available farm business survey, the average FBI of Horticultural businesses in 2008 fell by 43%, from 2007 to £29,305. This fall followed four consecutive years of increased profitability within the industry. For horticultural businesses as a whole, the percentage equity in the business decreased very slightly during the last year to 77.2%. The value of Fixed Assets increased by 6.8% to £479,292, and total External Liabilities increased to £145,715 per business.

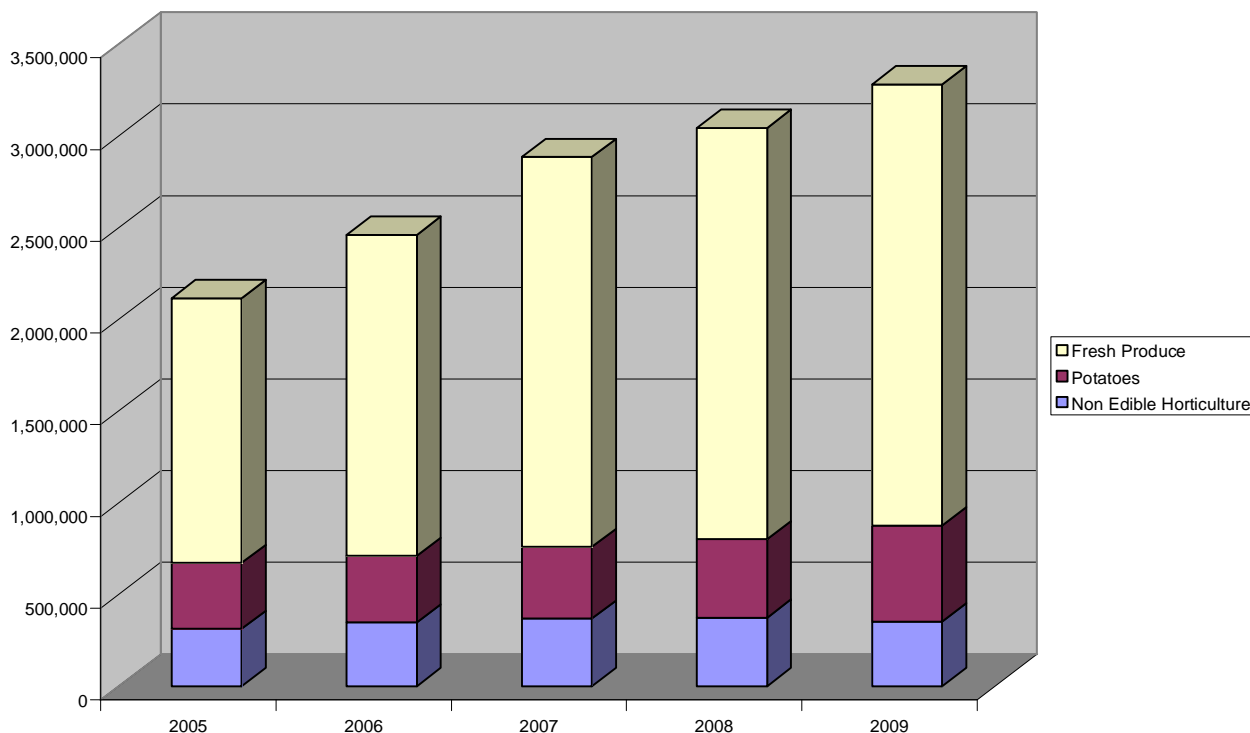
6 Value Adding

Collecting robust data on the value adding parts of the horticultural supply chain (packers, processors, importers and exporters) has not been straightforward. A comprehensive survey was sent to 250 supply chain businesses in the region but an insufficient response was received to make the results statistically significant. A copy of the survey is enclosed in Appendix 3. This report has thus had to rely on published data, principally the analysis of the firms in the region by the analyst firm Plimsoll.

Based on our analysis of the relevant data, over the last five years the average value of the added value elements of the supply chain in the region has been circa **£2.7 billion** per annum. This breaks down between the fresh produce industry (to include packing, processing, importing and wholesaling) worth circa £1,950 million, potato packing and processing \$420 million and non-edible horticulture £350 million.

This average however masks growth in the sector, which between 2005 and 2009 has been substantial. Turnover grew from £2.1 billion to £3.2 billion with the most substantial growth in the early years of the period, as set out in the Graph below.

Chart 25 – Value of Supply Chain Businesses



Grow: EM

The Horticultural Industry in the East Midlands
September 2010



The breakdown of this £2.7 billion on a county basis is as follows:

Table 6 – Valuation of Supply Chain Businesses by County

County	Average Value 2005-2009	% of regional activity (rounded)
Lincolnshire	£2470 million	91.3%
Nottinghamshire	£91.0 million	3.3%
Leicestershire	£51.1 million	2.0%
Northamptonshire	£6.3 million	0.2%
Derbyshire	£82.3 million	3.2%
TOTAL	£2700 million	100%

Despite the growth in turnover, analysis by Plimsoll suggests that the value of many companies has reduced over that period – at a UK level 346 companies in the UK Fresh Produce industry lost over a third of their value in the last year – and only 360 companies managed to increase their value – a record low figure in the history of Plimsoll producing the analysis. This would suggest that some businesses are protecting market share and turnover at the expense of profitability.

The Sector in Context

The importance of the sector is also reflected in data from the Office for National Statistics (ONS) which shows that a greater proportion of East Midland's economic output came from manufacturing than in any other country or region of the UK. Although the ONS data does not isolate food manufacturing, packing and processing from other sectors of industrial activity, it does show that over 6 per cent of the UK's gross value added (GVA) – a key measure of the economic performance of a region – is created in the East Midlands. The region's headline GVA (in total, not food sector specific) was around £80 billion in 2008.

7 Retail

The total spent by consumers in the East Midlands on fresh and processed vegetables (including potatoes) per person is £260 per year⁵, giving a retail value to the potato and horticultural edibles sector of circa **£1.15 billion**⁶. The fact that this is smaller than the value of the supply chain sector demonstrates the importance of the region's supply chain sector supplying retail and food service outlets in other regions of the UK.

East Midlands consumers consume about 180,000 tonnes of potatoes and almost 550,000 tonnes of fruit and vegetables per annum.

In addition it is likely (though difficult to accurately quantify) that the landscape industry sector has a value in excess of £210 million and garden retailing has a value in excess of £340 million⁷.

⁵ Latest data from "Family Food" at <http://www.defra.gov.uk/evidence/statistics/foodfarm/food/familyfood/documents/index.htm>

⁶ Based on a regional population of 4.4 million – see ONS data at <http://www.statistics.gov.uk/cci/nugget.asp?id=1129> [accessed July 2010]

⁷ Estimates based on Table1 of Jamieson & Associates 2008 Report on a pro-rata basis, presuming 7.16% of the UK's population is based in the East Midlands. It does not account for different socio-economic differences between regions.

8 **Industry Outlook and Issues**

A series of focus groups were held across the region with a range of representatives from primary production and supply chain businesses. A schedule of these is enclosed in appendix 4.

A summary of the issues raised is presented below:

8.1 **Supply Chain Structure**

There have been a number of reports looking at the supply chain issues in UK horticulture; the most recent was a review by EFPF of the fresh produce sector. A summary of their recommendations can be found in Appendix 5 and these have been used in conjunction with the feedback from the focus groups:

- Supply chain structure came up the most times in discussion and with it the associated issues of profitability and capital re-investment. Despite concerns from many growers and supply chain businesses that margins were wafer thin, the general view from most was that the commercial arrangements 'were what they were.'
- Some growers and supply chain businesses felt that the relationship out of balance – "retailers protect their margin" – and supply chain businesses are the ones being squeezed. However, it was also noted that the retailers "know how hard to push" and if more than one or two significant producing or packing businesses were to cease trading then it was likely pressure in the supply chain would ease back as "ultimately they know they need a UK grower and packer base".
- The dominance of retail as the ultimate customer was discussed, and it was noted the UK fresh produce sector in particular had lost ground in the wholesale market sector to the Dutch. It was suggested that an industry commissioned review of non retail opportunities in fresh produce would be a worthwhile report.
- There was little appetite for substantial government interference / regulation in the supply chain. Most growers and supply chain businesses felt that the relationships between growers, packers, processors and retailers are commercial relationships. The overwhelming feedback was that these relationships should be left to the market, and for individual businesses to negotiate. Growers did acknowledge however that there may be a role for intervention in some circumstances and there was some support for a Groceries Adjudicator amongst elements of the grower base providing it is focussed on being a

'facilitator' to improve overall supply chain efficiency and does not just act as a 'policeman' dealing with individual issues.

- A couple of specific examples of supply chain issues given by businesses were around rejections and payment terms. Incentivising QC staff at retail level based on rejections is clearly wrong – but apparently has occurred leading to deliberate damage of boxes on intake to hit quota. Changing payment terms on a whim was also found to be an issue in a limited number of circumstances.
- The over-riding feedback however was that ultimately horticulture / fresh produce is a relationship business and governments can't force relationships. It was noted that the degree of collaboration needs to be approached with care as "collusion" over pricing for example would fall foul of the Office of Fair Trading.
- At the information exchange points in the chain, staff continuity was definitely an issue. It was felt that many retailers use the excuse that produce managers want to move on as a tactic for not allowing relationships to develop with their supply chain businesses.
- Many growers felt that the current supply chain model encourages oversupply – yet growers have been forced to cut back 'slack' as margins come under pressure. There have been several examples of fixed price contracts (especially in the potato sector between grower and packer) meaning growers no longer get such a great upside in short years; super-profitable peaks to producers have largely diminished.
- Planning was raised as a key issue. It was felt that often retail programmes and promotions are often not set properly in conjunction with packers and growers and are set at the whim of managers further removed from the interface. This makes supply planning and procurement difficult for both growers and packers.
- It was noted that there had been little investment in processing in UK – is this healthy for the future of the sector? It was, however, acknowledged in many lines there was too much product and sometimes overcapacity.
- Was consolidation at higher levels of the supply chain a real concern? Some felt maybe – but more to a geopolitical extent – several attendees felt that the Boards of the Major Five Multiples really drive UK Food Security (and not DEFRA, which is a side show to UK Retail).

- The fortunes of the hardy nursery stock sub-sector are somewhat different to the rest of horticulture since its fortunes are more determined by general economic well being. The sector has not restructured to the same extent as the edibles sector, and is dominated by a greater proportion of traditional family businesses and "hobby type growers" who are often more geographically dispersed. Several attendees felt there was merit in further industry consolidation, probably around Spalding or a major hub.
- It was noted that grower professionalism has increased, especially in fresh produce with larger and more efficient growers tending to have better management information systems. It was noted that in the non-edibles sectors such as flowers, hardy nursery stock and also in the propagation sectors management information systems may not be as well developed.
- Several people expressed the view we would give the industry a stronger voice if we focus on export potential (of produce and expertise) given exporting is likely to be important to the UK economic recovery. The strong pound during the period 1996 to 2005 made developing export markets difficult and strengthened the hand of the importers.
- It was noted that getting insurance cover on bad debts is increasingly expensive and as the number of businesses at all levels of the chain consolidate the risk of default is potentially greater.

8.2 Research and Development (R&D) and Knowledge Transfer (KT)

This was a major issue raised amongst many of the focus groups, and has been the subject of significant detailed investigation at UK level. The executive summary of a very recent authoritative report on the issue, by Brian Jamieson & Associates, is enclosed in Appendix 6. There were very polarised views amongst the grower base between those who were very concerned about the loss of industry wide R&D and KT capacity, especially within the region and others whose feedback was more apathetic.

- The view of a small number of (usually larger) growers was that the role of industry wide R&D is limited, and should be restricted to areas where there is not the opportunity to do individual business or crop association research (e.g. SOLAs for pesticides etc). Many however felt that without strategic R&D at industry level individual business or crop association R&D would simply become very 'near market' and would lack blue sky thinking critical to the industry's medium and long term future.

- Plant protection was a key issue raised in all focus groups, but the timing of the focus groups probably helped emphasise this given the issue has been very topical throughout 2009 and 2010. Concern was expressed about the loss of products (e.g. for carrots, with only 10,000 ha in the UK – this is too small an area to make registration worthwhile). Loss of products such as *Dosaflor* is a major concern to the fresh produce community. It was noted by several growers and packers that there are already significantly less products approved in UK for crops such as brassicas vs. other European countries and the USA.
- Concern was expressed that with the rising cost of SOLAs⁸ a much greater proportion of the HDC R&D budget would end up being used to support off label approvals. There was no support amongst the focus group attendees for raising the HDC levy above 0.5% and therefore future funding of HDC R&D may well come under pressure.
- The loss of a UK academic research base was not seen by some to be a major issue providing relevant R&D from overseas could be accessed easily. Others, quite correctly, placed a much greater emphasis on the need for applied science-based R&D which was directly relevant to UK growing conditions and operated within the context of the UK industry.
- Many of the larger grower businesses and those associated with a packer or a crop association said they preferred to do their own near-to-market R&D because they saw it as a source of competitive advantage – and therefore were against HDC or other industry wide initiatives getting more involved in near-to-market crop specific R&D activity. Those who were more pro industry wide near-to-market R&D were those without crop associations (e.g. Hardy Nursery Stock).
- Funding of R&D and KT was discussed at length. It was noted that there was often a short term focus on funding – initiatives such as the Cut Flower Centre at Kirton survived on a 'hand to mouth' existence basis. There were mixed views on the performance of the regional structures (EMDA, GoEM) in supporting R&D and KT but a concern that a change to LEPs would mean more uncertainty and upheaval and that some stability was needed. The substantial cuts to funding at central government level (DEFRA) are obviously a huge concern for the future public funding of research across DEFRA's entire portfolio, and it is important that horticulture retains a strong element of this funding going forward.

⁸ It was noted that three years ago the cost of SOLA's was £1200 – in three years time they will cost £7000 – this is because the Chemical Regulation Directorate (CRD) (the successor to PSD) is now insisting on full cost recovery. This is not the same in all of Europe. CRD also won't allow mutual recognition.

- Retailer engagement in R&D and KT was raised by several commentators. It was noted that retailers had put very little investment into the horticultural sector compared to the initiatives they had backed in cereals and in livestock. Engaging retail and upstream elements of the supply chain in the R&D and KT debate so it is less grower centric is critical.
- Many in the industry were very sad to see the demise of HRI and the closure of Kirton and consolidation of Wellsbourne into Warwick University. However, on the positive side it was felt by some that with the demise of HRI the opportunity was there to get more done by different Universities and research centres and more applied R&D done by Industry. There was a feeling that some industry research automatically goes to the 'usual suspects' who are slow and don't maximise commercial sector linkages. Reading University remains well positioned from a national perspective, and at a regional level, there is a real opportunity for both the University of Lincoln to develop its National Centre for Food Manufacturing at Holbeach (which already offers Foundation Degrees in Commercial Horticulture) and for the University of Nottingham at Sutton Bonington (which is internationally known for its crop science research activity).
- It was noted by some that the lack of applied scientists (generally, not just in horticulture) was a strategic policy issue – how to get more scientists into applied R&D (especially in agriculture and horticulture?) is a strategic concern at UK government level. It was suggested that the profile of applied industry research needs to be raised by getting more applied research published in top ranking peer reviewed journals
- Some growers felt that technological advancement in the industry had definitely slowed – tunnels revolutionised soft fruit production and modules were the last big technological advance in field scale vegetables. Many felt that UK horticulture was falling behind on the mechanisation, robotics and storage challenge. Industry leadership to innovate and develop in these areas is essential.

8.3 Transport and Other Infrastructure

Infrastructure is a sub-regional issue with greater concerns amongst growers and packers in South Holland than in other parts of the region. In Nottinghamshire and northern Lincolnshire it was seen as less of an issue with access to the better roads. A summary of the main infrastructure challenges in South Holland is presented in Appendix 7. Issues raised were as follows:

- Other key producing regions (such as the Vale of Evesham) are better located to the motorway network than South Holland – will this erode the medium term competitiveness of the region?
- It was noted by many (especially in the supply chain) that Boston and South Holland was a critical location for value add businesses even those not feeding off local produce, because of the bank of technical expertise; knowledge and support businesses in the region.
- There was a mixture of views on lobbying for better infrastructure. On the one hand, the dualling of the A16 and A17 were seen as strategic priorities by many and support was expressed for the possible rail hub. Others were of the view that the A16 and A17 mainly consisted of 'professional drivers' and that the new A16 to Peterborough would solve many of the problems.
- Planning was generally seen as less of an issue than in other places such as West Sussex where local opinion and councils were much more supportive of the sector. Reservoirs were sometimes a challenge. It was noted that Spalding was well positioned to be a national centre of excellence in Horticulture and the hope was expressed that future large investments such as Thanet Earth would be attracted to the region.

8.4 **Collaboration**

Grower collaboration is a key issue as we see consolidation of production in the hands of fewer growers. A number of observations were raised about the effectiveness of collaboration in the sector:

- Co-operatives are more common on the continent than in the UK yet "in many ways these supply chains are often less efficient than in the UK".
- Traditional co-operatives were often caught in a trap between serving grower members and serving customers. Those that have succeeded have aligned themselves closer to their customers than to their growers, and become more commercial. Many growers felt they needed to be shareholders in the co-operative and accept a return but that the co-op should not have obligation to accept all crop from all members.

- Some felt that co-operatives did not respond quickly enough to the changing retail landscape in the 1990s and this was the beginning of their decline. Low calibre management was often a cause of concern as well.
- There was a strong level of disquiet and dis-satisfaction from those who were involved with Producer Organisations (PO's) as recognised under the EU Fruit and Vegetable Regime. It was felt by many that the recent rulings against DEFRA/RPA by the EU auditors had been very unhelpful – and that DEFRA and RPA need to be more creative about interpretation of the rules, and also lobbying at EU level for more clarity. It was suggested that, if the EU Fruit and Vegetable Regime is to continue, then the rules must fit with the structure and culture of the UK industry which is very different to Europe – and DEFRA should be making this point strongly to the Commission.
- The counter view expressed by at least one grower was that PO's (in the current EU sense and thinking of the 'collaborative model') don't work in the UK because of our 'individual business' mentality and supply chain structures – and that the UK has "tried to manipulate the rules without properly collaborating."
- Some of the respondents questioned the validity of the EU Fruit and Vegetable Regime, and the fact that history shows that capital grants can inflate overhead costs and cause overcapitalisation of businesses making them ultimately uncompetitive. It was also noted that despite the best intentions of the scheme, in reality many PO's were organised around a single packer or single retailer and thus in reality a good proportion of the benefit was lost by growers to upstream businesses. It was however acknowledged by all respondents that there is unlikely to be any change to the Regime at EU level for the foreseeable future, and thus it is imperative the UK industry works with government to maximise the most effective use of the resources available.
- It was also noted we have been very poor in the UK at establishing, and participating in, cross-country PO's with other EU member states.

8.5 Employment and Skills

A range of views were expressed about the availability of unskilled, semi-skilled and professional management within the industry in its widest sense.

- Some of the largest businesses (especially in fresh produce) expressed frustration at being able to recruit good 'growers' – and felt there was too much focus at University on agribusiness teaching and not on producing growers.
- The demise of horticultural courses in agricultural colleges and universities was seen as a problem, but generally it was accepted there probably wasn't a large enough student market to reintroduce them at undergraduate degree level. It was noted that a small number of institutions still offered MSc courses in Horticulture (including Wellsbourne, Reading and Writtle) and that a number of the county colleges offered courses at National Diploma level. Salad and field scale vegetable producers said they often relied on agriculture/crop production undergraduates and aimed to teach them the specialist crop skills.
- Some businesses took the view that it was down to individual businesses to solve the problem – and that if positions and benefits were made attractive enough then the right talent would be attracted.
- Others thought the industry needed to do more to raise the profile – schools and colleges thought it was a low value sector and a place for underachievers with few GCSEs to go. It was noted that a poor image of health and safety and poor working conditions probably prevented many going into the sector. There should be a serious drive to communicate with careers advisors in local schools given what this report identifies about skills levels and the opportunities.
- It was noted middle management is now often Polish or from the Baltics – these people have brought families and have settled in the UK. The majority of businesses thought that, with careful selection, these people made good management although one or two preferred to keep them at supervisor level, worried that they would probably return home and did not have long term commitment to the UK.
- Remuneration was not thought to be an issue at mid to senior level management positions – it was acknowledged that it had been a few years ago and there may still be the perception of the industry being poorly paid. At the lower end, it was noted the rising minimum wage had closed the gap between the very bottom of the spectrum and those in the ranks immediately above it who had not had significant rises for 2 or 3 years, especially those working in packhouses. Those working undertaking fieldwork on a piecework basis tended to get much better rewards.
- Many noted that "operators" were really best described as skilled technicians rather than tractor drivers – with many earning over £30,000 per annum.

- It was noted that from an unskilled casual perspective there had been a natural evolution of the pool of workers. This had included Irish workers in the early twentieth century, casual gangs in the 1950s and 1960s; former coal miners in the 1980s; Eastern European workers in the 1990s and onwards. Most felt that this evolution would continue to occur and it is essential future government policy does not restrict the supply of immigrant labour.
- The work of the Gangmasters Licensing Authority (GLA) was generally applauded and it was noted it had achieved a lot in terms of regulating casual and temporary staff supply. There remains work to be done.
- It was noted that in Lincolnshire (and particular in South Holland) there are a couple of specific local problems:
 - Many young people leave Lincolnshire because they can't find good quality employment or wish to live somewhere with a wider range of leisure and social options;
 - Many external recruits into middle and senior management positions choose to live outside of South Holland towards Stamford which creates quite a lengthy commute for these individuals.
- It was noted that many smaller horticultural businesses had aged management structures and that it devalues a business if you try and sell it and management team want to retire. This would appear to be more of an issue in the protected and nursery sectors.

8.6 **Water**

Water and irrigation is a very local issue for South Holland and there is concern amongst many grower businesses. The lack of good quality irrigation for many businesses will undermine the regions long term competitive advantage.

- Historic overproduction buffers at farm level (often circa 15-20%) have gradually been eroded due to price pressure and this irrigation is viewed as essential to ensure consistency of supply for retail and food service customers. Many Fen businesses said they will under deliver on some of their crop obligations this season (2010) with no rain throughout most of the spring and early summer.

- It was felt that the UK horticultural industry needs to capitalise on the efficient use of water in the UK and its relative abundance against the production of imported crops in areas which may be already drought stressed such as parts of Spain or North Africa. Water footprinting is likely to become a major sustainability indicator over the next five years, and could offer the UK industry real benefits but it was noted that as with carbon footprinting, it is likely the chain will have to absorb the costs of the additional auditing and compliance.

8.7 Industry Representation

A number of issues were raised about representation of horticultural industry interests within the wider agricultural sector and in terms of engaging with other stakeholders:

- Some expressed the concern that industry bodies such as the NFU were often dominated by combinable crop and livestock interests, and that horticulture did not receive the recognition it deserved, despite the best efforts of the elected officers and specialists who worked tirelessly on the horticultural industry's behalf.
- It was suggested that a Lincolnshire Horticultural Forum (or East Midlands Horticultural Forum) should be established to promote the region to the rest of the UK as a horticultural powerhouse, with a particular suggestion to promote Spalding as a national centre of excellence for horticulture. This forum would probably be best established as a subsection of the existing Lincolnshire Agricultural and Horticultural Forum to avoid duplication of effort and resources.
- Some suggested the industry needs to work closer with environmental NGOs as it became clearer in the medium term that there were significant negative environmental consequences from the overcropping of some horticultural crops in other parts of the world leading to detrimental impacts on wetlands, landscape and biodiversity.
- Concern was expressed amongst some participants about the lack of empathy, knowledge and understanding of the horticultural sector amongst some MPs and MEPs. Pesticides were singled out as a point of particular concern. The Regional Horticultural Board should take a strong lead on engaging with such issues.

8.8 Provenance

There were a range of views on the importance of provenance in different parts of the sector. In summary:

- Provenance is more important for edibles than non edibles. There is a strong affinity with "Lincolnshire" and the Select Lincolnshire brand has been very successful in raising the profile of the county's fresh produce industry. Sub-regional (county and district) branding does not work as South Holland does not have a strong identity outside of Lincolnshire. County-based branding is more difficult in other parts of the East Midlands.
- For flowers and non-edibles the feeling was that "British" was more important than regional branding – the market is less segmented than for edibles.
- It was noted that branding is harder in food service than in retail, and in retail there is an issue of the brand control by the retailer.
- County branding rather than local branding works best for Lincolnshire because it can be used to promote Lincolnshire produce in nationally important markets such as London.
- Some concern was raised about different organic standards in Europe and different levels of derogation being an issue. Many felt that the provenance debate has moved on from organic anyway and that the affinity with a region and/or grower was more important.
- Whilst acknowledging the importance of provenance, several supply chain businesses especially in produce noted that it needed to not add unnecessary cost of the final product. Small lorries cost up to 70% of an articulated lorry and with the exception of Cornwall, everywhere in England can be reached by a lorry in a day from Spalding. The conclusion is that large lorries may be more efficient and whilst the retailers like a strong provenance story they are reluctant to pay additional costs for that.

8.9 Summary of Priorities Raised

The focus groups raised a range of different issues, but the most important issues by frequency raised were:

- Profitability and business continuity

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

- Sustainability (in its broadest sense, covering economic and environmental issues)
- Availability of capital for reinvestment
- Labour shortages especially in middle management
- Research and Development and Knowledge Transfer
- Water resource management
- Competition
- Legislation and Regulation
- Supply chain pressure
- Pesticides

It is encouraging that many of the issues raised are exactly the same as those by the Fruit and Vegetable Task Force, which reported to DEFRA in August 2010. The summary of their conclusions can be found in Appendix 8.

9 **Conclusions and Recommendations**

A number of the issues which were raised in this report are of National Significance, and which mirror previous reports looking at industry issues. These are as follows:

Supply chain structure

1. The relationships between growers, packers, processors and retailers are commercial relationships. The overwhelming feedback was that these relationships should be left to the market, and for individual businesses to negotiate.
2. Growers did acknowledge however that there may be a role for intervention in some circumstances and there was some support for a Groceries Adjudicator amongst elements of the grower base providing it is focussed on being a 'facilitator' to improve overall supply chain efficiency and does not just act as a 'policeman' dealing with individual issues.
3. It is critical that added value businesses have a range of outlets. The strong pound during the period 1996 to 2005 made the establishment of export markets for UK horticultural products very difficult and helped strengthen the importing sector. Weaknesses in the UK processing sector are a concern for the grower base and rebuilding relationships with wholesale outlets is also critical.

Horizontal collaboration

4. There was very mixed experiences of the Producer Organisation (PO) scheme with some bitterness towards DEFRA and RPA from those who had been in PO's which had been de-registered. It was felt that, assuming the Regime continues, DEFRA needed to argue for more flexibility implementing the PO regime in the UK, as the UK model of collaboration tended to be 'looser' than the centralised facilities model adopted by other European countries.

Research and Development

5. A wide range of views here, but an acknowledgment that there had been a loss of pure and applied R&D and knowledge transfer capabilities. R&D and KT budgets will come under pressure, and the rising cost of SOLAs is likely to put further pressure on the HDC. There is strong support for industry led R&D within crop associations and by groups of businesses, but an acknowledgement this is 'near to market' R&D and that the demise of HRI leaves a gap for strategic R&D which needs to be filled to ensure the industry's long term competitiveness and ensures horticulture contributes to DEFRA's 2030 Food Strategy.

Labour Availability

6. The industry is very dependent upon the supply of good skilled and semi-skilled migrant labour, especially from the CEEC region. It is vital that recent government policy towards immigration does not prevent the industry from accessing the labour that it requires.

A number of specific regional issues arose:

Regional Representation and Delivery

7. The move away from Regional Development Agencies (RDAs) to Local Enterprise Partnerships (LEPs) presents both an opportunity and a threat to the horticultural sector. A strong voice for horticulture on a future Lincolnshire LEP seems more straightforward than for other 'pockets' of activity in other areas which may not be so fortunate, especially if other county-based LEPs are more urban focussed.
8. It was felt a stronger voice for Horticulture through a 'horticultural forum' might be of benefit; a strengthened Lincolnshire Agricultural and Horticultural Forum might be one such medium. Several stakeholders suggested the promotion of Spalding as a 'national centre of excellence for horticulture.'

RDPE

9. There was Strong feedback that the current regional delivery should be maintained until 2013, even if other regional structures are dismantled. Changing the delivery basis part way through the programme was thought to be counter-productive.
10. The principle focus of funding from the horticultural industry's perspective should be on resource use efficiency – specifically around water resource management (and investment in storage, rainwater harvesting and distribution systems), energy efficiency and energy from waste. Other areas which may be of value include technical skills, near market technology development and 'genuine' collaboration.

Regional Infrastructure

11. The importance of the congested A16 and A17 trunk roads and the lack of dual carriageway roads in South Holland were noted. There was some support in South Holland for the 'rail head' concept around Deeping St Nicholas. Effective lobbying by the industry in South Holland for improved transport links remains a priority.
12. Infrastructure was thought to be less of an issue in other parts of the region – North Lincolnshire, Nottinghamshire and Derbyshire are better served by good motorway and dual carriageway links.

Planning

13. Most businesses encountered few if any problems with planning and local authority engagement. Effective engagement with local authority planning departments is important if this positive trend is to continue.

Flooding and Coastal Defence

14. This is a specific sub-regional issue in South Holland where there is concern that economic value of the Grade 1 farmland might not fully be recognised in the case of any managed retreat of existing coastal defences. It is vital that the industry continues to lobby the Environment Agency and other stakeholders effectively to ensure that true value of the region is recognised in future plans.

Water Resources

15. The lack of irrigation by businesses in parts of South Holland (such as on the Holbeach Marsh) and possible restrictions in other areas (e.g. the Nottinghamshire sands) is a concern to those businesses who fear they will lose competitiveness to others who have water. Investment in winter storage is a priority for those who can access winter abstraction points and public policy should encourage further investment in sustainable irrigation infrastructure.

Grow: EM
The Horticultural Industry in the East Midlands
September 2010



Appendix 1 – Project Terms of Reference

Horticulture East Midlands

Background

Horticulture in the East Midlands is of regional, national and international significance. It is a highly developed and vertically integrated industry providing the East Midlands economy with production income and employment. Defra statistics for the region show that 2008 horticultural income from output was £403m some 23% of the English gross output and 18% of the gross agricultural output of the region. This sector also supports a value added processing and packing sector whose value and contribution to the region is not known but in terms of the supply chain processing and distribution must increase the value of the basic production by 2 or 3 fold, and much more for some products.

The importance of the horticulture industry is often understated and due to the poor structure of the Defra census statistical database it is only possible to identify the region's importance in terms of area and basic economic data but little else.

Outline project

In September a small group of growers who had previously met with *emda* submitted and gained approval for a horticultural project proposal to commission a study that will:

- Identify the location, structure, size and nature of fresh produce production in the region. The baseline data would be presented in a format that can be readily updated in the future and be of continued value to both the industry and regional policy makers.
- Identify the volumes and value of that production at farm gate and value added stages (processing, packing and retail).
- Identify the key issues that will need to be addressed in the next 10 to 20 years and build on those facts and figures to inform the industry on future strategies

In essence the project will undertake detailed research to establish a baseline, and provide analysis to provide strategic pointers on future issues that will need to be addressed in order to sustain and grow the sector.

Project objectives

The project will enable the industry and others to address the following:

- Raise robust statistics on value and impact of industry
- Better assess the current and future economic viability of the East Midlands industry
- Look at the longer term actions needed to deliver the 2030 food security vision
- Assess and develop future strategy and investment requirements
- Inform regional strategy such as the Regional Economic Strategy and Regional Investment Plan
- Inform RDPE regional policy
- Better contribute to the food security debate
- Inform policy on key issues and threats such climate change, sea level rise, and labour availability.

- Provide information to promote the industry and identify future training and skill needs

Beneficiaries

- Horticultural producers across the region - 768 holdings in 2008
- Fresh produce sector and support organisations
- Regional agencies, including emda and Government Office
- Local government – Economic development; Planning and CEO level.

Industry steering group

The steering group is made up of the following people:

- Mark Tinsley – PC Tinsley Ltd
- David Piccaver – JEPCO Ltd and Chairman NFU regional Horticulture
- Sarah Pettitt – Boston grower and NFU Horticulture Board Chairman
- Simon Fisher – NFU

Project delivery partners

The following organisations are proposed to deliver the project:

- 1) Industry steering group – as above
- 2) NFU - Project management and accountable for funding
- 3) Horticultural Development Company – industry data
- 4) Consultants – to deliver the key elements

Key elements of the project

- 1) A mapping exercise to provide baseline data on the East Midlands horticultural sector in terms of:
 - a. Primary production, including field vegetables and salads; bulbs and outdoor flowers; protected crops; and hardy nursery stock. (Potato sector?)
 - b. Value added processing and packing sector, including freezing sector and imported product
 - c. Outline of routes to markets and development

The data will provide comprehensive information on the structure of enterprises; cropping area and types; value of production; employment; routes to market etc. (HDC to confirm availability of levy database to enable such research). If possible the data should provide baseline statistics at unitary authority level and by district where the industry is particularly concentrated.

- 2) Undertake a survey of all growers in East Midlands (discuss mailing with HDC) to provide an analysis and prioritise threats (including business limiting factors) and opportunities facing the industry and how growers see their markets developing in future
- 3) Conduct focus groups to refine survey findings and baseline data and provide qualitative information

- 4) Produce a report on baseline data (in a format that is readily updateable in future) and present the outcomes of the issues analysed with recommendations and actions on future strategy
- 5) Hold an East Midlands industry conference that would disseminate findings and proposed actions and identify future industry partners to take proposals forward

Project timescales

The initial task once appointed will be for the consultant and NFU to work up the funding bid for submission to *emda* as soon as possible.

Richard Fung of *emda* has offered advice to help in completing the full application.

Emda undertake to approve applications within 20 working days subject to no technicalities with the application. Therefore we could anticipate funding approval by the end of the year (2009).

Emda has indicated that the project funding needs to be spent (claimed) by the end of their financial year (31 March 2010).

The time available to complete the project is therefore at least three months, and a preliminary conversation with Richard Fung has highlighted that while we need to submit an invoice by the year end there may be scope to finalise the report and present findings to industry. Further discussion with *emda* on this aspect will be needed.

Consultant appointment process

The industry steering group is inviting three consultants to submit a costed tender to deliver the above project. *Emda* has indicated that the project should not exceed £50,000 in value

The deadline for receipt of the tender is Wednesday 4 November and interviews will be conducted by the steering group on Friday 6th November at a venue and time to be advised.

The successful tender will be decided on 6th November and communicated that day.

Thereafter the consultant will be required to work with the partnership and write the full project application for submission to *emda* as soon as possible in order to meet the above timetable.

For further information please discuss with:

Mark Tinsley	07798 585311
David Piccaver	01406 550555
Sarah Pettitt	07712 792886
Simon Fisher NFU	01572 824254
Steve Tones HDC	0247 669 2051

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

Appendix 2 – Survey of Growers

The Horticultural & Potato Industry in the East Midlands

We apologise for sending you yet another questionnaire to be completed – but we would be very grateful for your help in completing this short form.

The East Midlands Development Agency (EMDA) is funding a project which is being run by the NFU in the East Midlands. "Grow: EM" aims to quantify the current location, size and nature of the horticultural and potato sector in the East Midlands and its importance to the regional economy. It also aims to identify the key issues that will need to be addressed in the next 10 to 20 years to determine future strategies for the sector. This is likely to be a major benefit to the industry in the region as investment from the EU, National Government of the Region would be easier to facilitate with this kind of information.

Bidwells Agribusiness has been commissioned as independent consultants to manage the project. This survey has been sent to all Horticultural Development Company levy payers in Lincolnshire, Nottinghamshire, Leicestershire, Derbyshire and Northamptonshire.

*The mailing out of this survey is all being managed by the Horticultural Development Company and all responses are **confidential**. Address and contact information is held solely by the HDC and has not been disclosed to Bidwells, the NFU or any other third party. Only anonymous responses will be made available to Bidwells and the NFU for further analysis.*

There is, however, the opportunity to add your contact details to this survey if you are interested in taking part in a focus group, or wish to receive a copy of the final report.

SECTION 1 – INFORMATION ABOUT YOUR BUSINESS AND THE SECTOR

Question 1. Farm Area / Location

1a. Please indicate the county and local authority district in which your principle place of business is located (e.g. South Holland, Lincolnshire; Bassetlaw, Nottinghamshire).

.....

1b. What is the total cropped area of your business per year:

All arable crops ha

Horticultural enterprises ha

1c. What area of land is double cropped each year?ha

1d. What proportion of the land is registered organic or in organic conversion%

Question 2. What areas have you grown of the crops listed below in the last 5 years?

Crop Grown	2005 Area (ha)	2006 Area (ha)	2007 Area (ha)	2008 Area (ha)	2009 Area (ha)
Potatoes					
Bulbs & Outdoor Flowers					
Field Vegetables					
Alliums					
Brassicas					
Curcubits					
Herbs					
Legumes					
Salads					
Roots					
Other					
Hardy Nursery Stock					
Protected Crops					
Soft Fruit					
Top Fruit					

Question 3. What was your turnover by crop over the last 5 years to the nearest £5,000?

	2005	2006	2007	2008	2009
Potatoes					
Bulbs& Outdoor Flowers					
Field Vegetables					
Alliums					
Brassicas					
Curcubits					
Herbs					
Legumes					
Salads					
Roots					
Other					
Hardy Nursery Stock					
Protected Crops					
Soft Fruit					
Top Fruit					
Total Turnover					

Question 4. How many farm employees do you have and how has this changed compared with 2005:

	2005	2009
Full-time		
Part-time		
Administrative		
Seasonal of which UK labour of which overseas		
Self-employed		

Question 5. What proportion of your farm inputs are procured from businesses based in the East Midlands region (defined as Lincolnshire, Nottinghamshire, Leicestershire, Derbyshire and Northamptonshire)? [For the avoidance of doubt this would include the buying group you are buying through if they are located in the region]

	%
Seeds/Plants/Ferts/Sprays	
Fuel	
Machinery	

Question 6. What is the average distance, in miles, to primary markets (first downstream buyers) for each crop group? Please tick the relevant box.

Distance in Miles:	0 – 10	11 – 25	26 – 50	51 - 75	Over 75
Potatoes					
Bulbs & Outdoor Flowers					
Field Vegetables					
Alliums					
Brassicas					
Curcubits					
Herbs					
Legumes					
Salads					
Roots					
Other					
Hardy Nursery Stock					
Protected Crops					
Soft Fruit					
Top Fruit					

Question 7. What Percentage of Overall Sales (in value terms) are to businesses based in East Midlands (defined as Lincolnshire, Nottinghamshire, Leicestershire, Derbyshire and Northamptonshire)? [Note: we recognise this may not be straightforward – please do your best to answer this question as accurately as possible]

	Proportion of Sales Value in East Midlands			
	0 - 25%	26 – 50%	51 – 75%	76 – 100%
Potatoes				
Bulbs & Outdoor Flowers				
Field Vegetables				
Alliums				
Brassicas				
Curcubits				
Herbs				
Legumes				
Salads				
Roots				
Other				
Hardy Nursery Stock				
Protected Crops				
Soft Fruit				
Top Fruit				

SECTION 2 – YOUR VIEWS ON THE INDUSTRY'S FUTURE

Question 8

(a) Please indicate 'strongly agree' 'agree' 'neither agree nor disagree' 'disagree' or 'strongly disagree' to the following statements (please tick one box per statement)

(b) Please rank the statements in order of importance (1= most important; 10 = least important)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Importance ranking
Recruiting and retaining skilled staff is an increasing concern to my business						
Migrant workers make an important contribution to the health of the sector in the region						
I worry about the consolidation of power within a few hands at the higher ends of the supply chain						
Current levels of profitability do not allow for adequate investment in infrastructure						
The current supply chain structure discourages innovation						
I worry about the loss of applied R&D and knowledge transfer capability especially within the region						
I am worried about the future security of agricultural water resources						
I am concerned by the loss of crop protection products especially for the minority crops						
I am concerned about flood and sea defence management						
The planning system is a major constraint to the expansion of my business						

Question 9. How confident in economic terms are you with the supply chains for your produce?

Question 10. How 'healthy' in economic terms do you think the East Midlands Horticulture Industry is?

Question 11. How do you feel about the future of your own business? (please tick)

Confident

Not Confident

Uncertain

Question 12. Are there any specific local issues which concern you – specifically for example, planning, infrastructure, Local Authority support and engagement?

Question 13. Do you feel you have good engagement with the wider local community? Please give examples if possible (such as hosting educational visits, permissive access etc).

Question 14. Do you think there is sufficient integration between each level in the East Midlands Horticultural Industry supply chain? (please tick)

	Sufficient	Insufficient	Not Sure
Communication
Transparency
Information Flow

Question 15. Do you have any further comments on the Strengths, Weaknesses Opportunities or Threats facing the industry in the region?

If you are interested in taking part in a focus group please enter your details below (this is entirely optional)

Name	
Address	
Telephone	
Email	

Thank you for your support. If you have any queries do not hesitate to contact one of the project team: Mark Tinsley, David Piccaver, Sarah Pettit or Simon Fisher.

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

Appendix 3 – Survey of Supply Chain Businesses

The Horticultural & Potato Industry in the East Midlands

We apologise for sending you yet another questionnaire to be completed – but we would be very grateful for your help in completing this short form.

The East Midlands Development Agency (EMDA) is funding a project which is being run by the NFU in the East Midlands. "Grow: EM" aims to quantify the current location, size and nature of the horticultural and potato sector in the East Midlands and its importance to the regional economy. It also aims to identify the key issues that will need to be addressed in the next 10 to 20 years to determine future strategies for the sector. This is likely to be a major benefit to the industry in the region as investment from the EU, National Government of the Region would be easier to facilitate with this kind of information.

Bidwells Agribusiness has been commissioned as independent consultants to manage the project. This survey has been sent to all horticultural and potato industry producing, packing and processing businesses in the region.

The mailing out of this survey is all being managed by the NFU and all responses are entirely anonymous. There is, however, the opportunity to add your contact details to this survey if you are interested in taking part in a focus group, or wish to receive a copy of the final report.

SECTION 1 – INFORMATION ABOUT YOUR BUSINESS AND THE SECTOR

Question 1 - Location

Please indicate the county and local authority district in which your principle place of business is located (e.g. South Holland, Lincolnshire; Bassetlaw, Nottinghamshire).

.....

Question 2. How many employees do you have and how has this changed compared with 2005:

	2005	2009
Full-time		
Part-time		
Administrative		
Seasonal of which UK labour of which overseas		
Self-employed		

Question 3. What was your turnover by crop over the last 5 years to the nearest £5,000?

	2005	2006	2007	2008	2009
Potatoes					
Bulbs & Outdoor Flowers					
Field Vegetables					
Alliums					
Brassicas					
Curcubits					
Herbs					
Legumes					
Salads					
Roots					
Other					
Hardy Nursery Stock					
Protected Crops					
Soft Fruit					
Top Fruit					
Total Turnover					

Question 4. What proportion of your overall raw material (in value terms) is sourced from businesses based in East Midlands (defined as Lincolnshire, Nottinghamshire, Leicestershire, Derbyshire and Northamptonshire)? [Note: we recognise this may not be straightforward – please do your best to answer this question as accurately as possible]

	Proportion of Sourcing in East Midlands			
	0 - 25%	26 – 50%	51 – 75%	76 – 100%
Potatoes				
Bulbs & Outdoor Flowers				
Field Vegetables				
Alliums				
Brassicas				
Curcubits				
Herbs				
Legumes				
Salads				
Roots				
Other				
Hardy Nursery Stock				
Protected Crops				
Soft Fruit				
Top Fruit				

SECTION 2 – YOUR VIEWS ON THE INDUSTRY'S FUTURE

Please give your views on the Strengths, Weaknesses, Opportunities and Threats facing the industry. You may like to consider the following areas:

- Supply base
- Employment opportunities / skills gaps and shortages
- Infrastructure, especially logistics and transport
- Relationships with customers
- Support from local authority and regional bodies
- Energy and environment

Strengths	
Weaknesses	
Opportunities	
Threats	

If you are interested in taking part in a focus group please enter your details below (this is entirely optional)

Name	
Address	
Telephone	
Email	

Thank you for your support. If you have any queries do not hesitate to contact one of the project team: Mark Tinsley, David Piccaver, Sarah Pettit or Simon Fisher.



Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS**Appendix 4 - Schedule of Focus Groups Held**

Date	Venue
5 July - 8.30am South Lincs – Vegetables and Potatoes	Patio Room, Springfields, Spalding
5 July – 3.00pm Boston – Added Value Contacts	Supreme Inn at Bicker Bar Roundabout
6 July - 8.30am North Lincs – Vegetables and Potatoes	The George, Kirton Lindsey
7 July - 8.30am Nottinghamshire – Vegetables and Potatoes	Clumber Park Hotel near Worksop
7 July – 3.00pm Grantham – Added Value Contacts	Ramada Hotel, Grantham
8 July – 8.30am South Lincs – Flowers, Hardy Nursery Stock and Protected	Springfields, Spalding
8 July – 3.00 pm Spalding – Added Value Contacts	Springfields, Spalding
12 July – 8.30am Derbyshire – Flowers, Hardy Nursery Stock and Protected <i>[cancelled due to insufficient attendees]</i>	Melbourne View Hotel, Melbourne, Derby

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

Appendix 5 – Driving Change in the Fresh Produce Sector (Executive Summary of an EFP Report)

Driving change in the Fresh Produce Sector

This summary has been produced to present the key findings from the Defra funded project “**Driving Change in the Fresh Produce Sector**” recently completed by EFFP.

Our findings are based on evidence and discussions gathered from Producer Organisations, supply chain businesses and other stakeholders across the industry. Within this summary we make a series of recommendations which we and others consulted believe will help drive positive change in the fresh produce sector.

An industry at the crossroads?

Over the last 10 years we have seen a fresh produce supply base that is in decline, or at best losing considerable market share to imports. The latest Plimsoll report into the sector has highlighted poor profitability; and our findings show that confidence amongst growers and others is low.

We see producers from other countries continuing to target our domestic markets and organising themselves into integrated supply chains that are able to successfully compete with our own supply chains and evidence suggests that we will see yet further consolidation of fresh produce supply chains across the EU; already we see European businesses investing directly into UK production.



We have a sector, particularly from the growers' point of view, that has not reacted to and embraced the need for structural change in the way we have seen in countries such as Holland to enable them to compete in an increasingly consolidated and global market place. However, we also have a sector that is complex and is dominated by a few large national players who exert enormous influence throughout the whole supply chain.

Moreover, we have an industry that in the most part has not utilised the EU Fruit and Vegetable Aid Scheme in the way it was originally intended, to support the change that arguably is required and as a consequence has created a situation where other EU growers have been able to secure a competitive advantage by utilising funds available through the scheme that UK growers have not adequately embraced.



In the immediate term there is a great deal of concern amongst UK Producer Organisations over the recent rulings and the subsequent suspension, and in some cases de-recognition of some PO's from the Fruit and Vegetable Aid scheme; but questions are raised as to whether this is a problem of the scheme or one that is caused by the fact that UK growers have, to an extent, tried to find mechanisms to secure funding from the scheme when in fact their structure and operational practices do not fully meet the criteria

of the scheme as originally envisaged.

Within our fresh produce supply chains, we see varying degrees of supply chain collaboration and relationships; from long lasting partnerships to those that are based on pure market transaction, where buyer and seller focus exclusively on the price-quality equation. However, evidence suggests that even in the more collaborative relationships, price still remains the “elephant in the room” and whilst parties may have a degree of loyalty to each other, there is still a fundamental lack of trust and confidence.

This lack of trust and confidence within UK supply chains is arguably the most significant factor impacting on the fresh produce sector. It was clear from discussions with growers and grower groups that a lack of confidence, together with low margins, was resulting in low levels of investment within the growing base – which translates into lower efficiency and reduced competitiveness leading to a vicious circle which if unchecked will continue to drive growers out of the industry.

However, we do need to recognise that some sectors and some businesses are generating sustainable margins. Furthermore, it would be wrong to suggest that overall supply chains are dysfunctional; we have seen a trend over recent years towards more integrated supply chain relationships within the fresh produce sector and there are good examples where this has happened. However a number of clear messages have materialised from this work that highlight the need for this trend to be accelerated, for the sector to take a more strategic approach to supply chain relationships so that we are able to retain a viable production base within the UK and develop supply chains that are able to compete in a global market place.

Driving Change



Throughout our work, two interlinked themes have emerged, both of which have a crucial role to play. The first is the need to develop more effective supply chain partnerships and the second is for growers to work more collaboratively with each other to generate greater market influence and operational efficiencies. Coupled with the second theme is the role of the EU Fruit and Vegetable Aid Scheme to provide a catalyst for further change and to support growers in the way in which it was intended.

However, whilst it is important that we should encourage greater collaboration between growers, this alone is unlikely to provide the answer. The emphasis must be on the development of strategic relationships and partnerships within supply chains whilst recognising that unless growers consolidate their position to generate the scale and sophistication required to engage within their supply chains in a meaningful way, they will struggle to exert any influence and as a consequence struggle also to realise the benefits afforded from such an approach.

In summary, looking at the sector from the growers’ point of view, it is not a case of building more sustainable supply chain relationships OR collaborating more effectively with each other; it will require a combination of both to really drive change and address the issues highlighted in this report.

Fostering such a supply chain approach, particularly in the current environment will not be easy to achieve. EFFP have developed a framework, outlined in the report, which is designed to bring together the three elements (shared commercial objectives, mutual dependency and chain integration) that we believe are crucial to the success of supply chain relationships and to provide a process to enable parties to move towards a closer, more collaborative relationship.



It is also recognised, that nurturing collaboration between growers is equally challenging particularly given the current situation regarding the EU Fruit and Vegetable Aid Scheme and that a framework of support and advice will be required to help foster greater collaboration between growers.

Recommendations

Based on the evidence gained throughout this work a series of recommendations have been developed. For clarity and ease of presentation these have been divided under the headings of supply chain relationships and grower collaboration as follows:

Building supply chain relationships:

- Identify a number of businesses which are prepared to explore the opportunity to develop closer, more collaborative relationships. Buy-in is more likely from those that are already involved in some level of collaborative activity already.
- Apply the framework developed by EFFP to explore, develop and implement a more strategic supply chain approach for the mutual benefit of all the participants involved.
- Encourage the participation and development of grower groups as a key strand of the process.
- Review the impact of such an approach and promote the outcome to the wider industry so as to encourage others to follow.

Encouraging greater collaboration between growers:



Growers need to be encouraged to collaborate more effectively with each other both to achieve greater operational efficiencies and to achieve the scale and sophistication necessary to engage with the supply chain in a meaningful way.

For numerous reasons, encouraging UK growers to collaborate has been, and continues to be challenging. To drive this agenda will, we believe, require the supply chain incentives that form the core of the recommendations above, but it will also require the provision of advice and support that includes a combination of business advice, supply chain expertise as well as knowledge of the EU Fruit and Vegetable Aid Scheme. However, it is recognised that the cost of such advice can provide a disincentive for growers to engage, particularly given the current lack of confidence that exists within the industry.

With regard to the EU Fruit and Vegetable Aid Scheme, it is clear that to a large extent the scheme has not been embraced by UK growers in the way that it was originally intended which has led to confusion, uncertainty and ultimately to the problems that now exist around the administration of the scheme.

To renew confidence in the Scheme it is important that growers and grower groups receive absolute and consistent clarity over its core objective and are able to access clear and consistent guidance on the implementation of the scheme.

Recommendations:

- Defra review the provision of information and guidance to the industry and set out clearly the core objectives of the scheme and rules outlining its implementation.
- Defra and/or the Fruit and Vegetable Task Force consider how the provision of support and advice to growers and grower groups could be „pump primed“ to incentivise greater uptake – to encourage and support the change that is required within the grower base.

The industry cannot change overnight, but setting out to develop closer, more collaborative supply chains will, we believe, start a process that over time can build the trust and commitment required to give the UK industry, and in particular the grower, the confidence to invest into the sector – turning the vicious circle of industry decline, into a virtuous circle of growth and profitability.

Grow: EM

The Horticultural Industry in the East Midlands
September 2010

BIDWELLS

**Appendix 6 – A Review of the Provision of UK Horticultural R&D: August 2008
(Executive Summary of a Report by Brian Jamieson and Associates)**

1. The current Department for Environment, Food and Rural Affairs (Defra) farming and food science programme, introduced in 2006, focuses on public policy issues of climate change, resource use, biodiversity and the sustainability of farming and the food chain. Unlike the horticultural crop science programme it replaced, this science programme has little direct impact on the technical problems growers currently face, though it clearly has some relevance to the medium and long-term sustainability of production horticulture.
2. This change in Defra R&D funding policy has serious implications for national capacity for strategic/applied R&D underpinning production horticulture. Transitional Defra funding to Warwick HRI and East Malling Research (EMR) has delayed the full impact of the shift in funding. But it is now beginning to bite. The deficit of funding for strategic/applied R&D underpinning production horticulture is growing. The result is that the model whereby the Horticultural Development Company (HDC) uses its industrial levy funds to support applied R&D projects that feed off a foundation of Defra-funded strategic R&D in horticultural crop science is no longer functional.
3. Market forces will encourage some R&D providers to respond by adjusting their skills and capabilities to compete for work that addresses Defra's new science priorities. This may help sustain individual institutions, but, overall, it will mean a drift away from strategic and applied R&D capacity relevant to horticulture.
4. Those institutions and R&D groups that have traditionally addressed grower's practical problems and which strive to maintain their expertise and facilities face a bigger challenge. To survive they will have to find alternative sources of revenue and capital funding for strategic and pre-competitive R&D of relevance to growers. Partnerships with other institutions might be one way forward.
5. The Biotechnology and Biological Sciences Research Council (BBSRC) has a responsibility for the health of the UK science base within its mission. In a similar manner, Defra has a general interest in the competitiveness of the horticultural industry, as part of the UK food chain. Though they both provide competitive R&D funding to individual institutions, neither the BBSRC nor Defra appear to accept responsibility for the health of the UK horticultural R&D base. They choose to rely on competitive market forces to meet their needs for scientific knowledge, technology and information, and the trained scientists. This position is predicated on the assumption that there will always be sufficient R&D capacity to meet their needs, overseas if necessary.

6. In Scotland the main public funder, the Scottish Government's Rural and Environment Research and Analysis Directorate (RERAD), has historically adopted a slightly different approach. Its commissioning of the horticultural R&D is largely designed to sustain capacity for a focused programme on berry fruits at the Scottish crop Research Institute (SCRI). It is unclear, however, whether this relationship will continue in quite the same form after RERAD's forthcoming review of its rural, environment and marine research strategy for 2010 and beyond.
7. By default, concern amongst funders for the health of the UK horticultural R&D base, especially in England and Wales, now largely falls to the HDC. Clearly it lacks the mission and the resources to assume full responsibility for sustaining the national capability.
8. Yet the demand for strategic/applied R&D for horticulture has not diminished. This study confirms that the national Horticultural Forum's (NHF) view that the production horticulture industry has a continuing need for a programme of applied R&D mainly crop-specific, supported by industrial levy and managed by the HDC, and strategic R&D, beyond the scope of levy funding, that addresses the broader challenges of environmental impact and resource efficiency; increased technology capability and infrastructure; and sustaining human health and well-being. Legislative changes (for example, impending EU changes to pesticides legislation) will present further challenges that will require underpinning R&D.
9. What is to be done? Looking ahead, there are several initiatives that, if successful, should improve matters. At a political level, the industry should emphasise that there are undoubted synergies between its priorities for strategic/applied R&D for the horticulture industry and the Government's needs for science and knowledge to inform public policy issues of climate change; biodiversity; sustainable use of resources; the health and well-being of the population. A successful, innovative horticulture industry can help deliver the Government's public policy aims. Recent concerns about food availability and security suggest it is now timely for the industry's collective leadership to present a new agenda to Government to promote R&D for agriculture and horticulture that is also compatible with public policy goals of climate change, the environment, rural sustainability, diet and health and, importantly, food security.
10. The creation of the Agricultural and Horticultural Development Board (AHDB) provides an opportunity for the previously separate levy bodies to work together in a number of ways. For example, by promoting generic crop R&D addressing pervasive topics such as water and soil resources and crop rotations. Encouraged by the AHDB, the levy bodies could also explore more

strategic approaches to commissioning and managing R&D, and generally utilising national R&D capacity more efficiently. Moreover, the AHDB, representing combined levy spending on R&D of around £20 million a year, has a powerful voice for discussions with potential partners in R&D, for instance other sectors of the fresh food supply chain and the Technology Strategy Board (TSB).

11. The HDC itself might consider the following options, not mutually exclusive, in its current R&D Strategy review:
 - focusing its funding to sustain selected UK R&D groups, individuals and facilities that are essential to delivering its applied research mission.
 - optimising its investment in R&D by exploiting international science, facilities and funding networks.
 - addressing a skills deficit in horticultural R&D by supporting short-course training in aspects of practical horticulture.
 - strategic commissioning of large programmes of research to give longer planning horizons to selected consortia of contractors.
 - seeking efficiencies in managing R&D and KT within the wider AHDB family.
 - playing a leadership role, possibly with the AHDB, in exploring new sources of R&D funds, including the regional development agencies and the TSB.
 - widening and deepening industrial involvement in strategic and applied horticultural R&D, again with the AHDB, building on the best features of the successful and popular HORTLink scheme.

12. The HORTLink [programme for industrial collaboration, funded by Defra, RERAD and the BBSRC, is now the only publicly-funded scheme for supporting applied and pre-competitive R&D of direct value to the horticultural industry. It is equally popular with R&D providers, the HDC and the industry. It achieves industrial engagement in the R&D process and delivers outcomes of direct practical value to growers. R&D providers, the HDC and the AHDB should make the case to Government for the main elements of HORTLink to be maintained, or even further developed, as part of a wider Agri-Food Innovation Platform under the aegis of the TSB.

13. At a tactical level, individual R&D institutions and groups should exploit existing sources of R&D funds more fully and explore new potential sources. Imagination and new approaches will be needed to engage successfully with non-traditional sources such as the regional development agencies (RDAs), whose objects are regional economical development and job creation, not R&D for its own sake.

14. With UK horticultural R&D facing big challenges and so much at stake, greater clarity is needed for the respective roles of the NHF, the National Farmers Union Horticulture and Potatoes Board, the Horticultural Trades Association, the HDC, and now the AHDB in providing collective leadership for horticulture and its R&D needs. There should be agreement on which of the big issues should be handled collectively with a single powerful voice and which would be more effectively handled by some or all of these bodies acting in concert.
15. A survey has demonstrated that the UK horticultural R&D base is quite strongly concentrated. Less than a dozen major R&D providers – research centres, groups within universities and commercial concerns, constitute the main national capacity. In addition, there are many small groups with relevant expertise, often in universities, that engage in horticultural R&D sporadically, as and when they win R&D grants and contracts.
16. In terms of facilities, the survey shows that the overall health of the UK horticultural R&D base is mixed. Largely reflecting past investment, some institutions still have facilities that are largely fit-for-purpose. Others have suffered from insufficient revenue and capital funding to maintain capacity. Some facilities are beginning to lag behind increasing technical standards in the industry. However, one or two providers have benefited from recent capital investment. If the present trend of insufficient capital investment continues, serious difficulties lie ahead for several UK horticultural R&D providers.
17. As for expertise, the survey confirms that several traditional skills are in short supply, notably agronomy, plant pathology and weed science. Expertise is too often one-deep. Succession planning is universally weak, or even non-existent, because of reduced and uncertain funding. Indeed several providers report they have little hope of recruiting at all in the foreseeable future. The age profile of almost 180 researchers (just over two-thirds are under 50 years old) may not be as immediately discouraging as first thought, but is still a cause for concern.
18. The UK horticultural R & D base has many strengths and should seek to turn present challenges into opportunities to increase sustainability and effectiveness. Positive thinking is needed by all parties, individually and collectively.

Appendix 7 – Transport Infrastructure Issues in South Holland

The issue of transport infrastructure varies across the region with it being highlighted as a concern by many of the growing and packing businesses in South Holland.

Road Transport

The A16 and A17 are the two principle north-south and east-west routes through the region respectively.

The A16, which runs for 85 miles from Peterborough to Grimsby has 'primary route' designation for its entire length although virtually none of it is dual carriageway and there are speed restrictions on much of it.

The road has been upgraded over the last twenty years:

- The 6-mile (9.7 km) £11.5 million Boston-Algarkirk Diversion opened in October 1991.
- The 11-mile (18 km) £23 million Spalding-Sutterton Improvement (the Spalding Bypass) opened in August 1995.
- The 14 mile (22 km) £69.8 million Spalding-Peterborough Improvement (the replacement to the old A1173) opened in August 2010.

However none of the above new sections are dual carriageway, meaning journey times are often slow with many tractors and slow moving lorries on the roads. Boston in particular remains a major bottleneck. The £1.4 million Boston Inner Relief Road opened in early 1978. There are demands for Boston to be bypassed.

The A17 links Newark in Nottinghamshire to Kings Lynn in Norfolk. It stretches for over sixty miles. It has very few stretches of dual-carriageway with the only significant stretch being the 3 mile long Sleaford bypass. An internet article also notes "the road carries more traffic than it was designed to carry. It also carried many goods vehicles that must travel at 40 miles per hour as it is a single carriageway. Impatient drivers take risks when gaps in the oncoming traffic allow".

Railway

The principle railway route through the South Holland Region is the Peterborough – Spalding – Sleaford – Lincoln line. It is frequently used as a diversionary route for freight away from the East Coast Main Line and in October 2008 Network Rail obtained funding for a £233 million upgrade of the line to free up paths on the East Coast Main Line.

Capitalising on this upgrade there is the proposal to create a new International Food Park and rail hub at Deeping St Nicholas. The aim of this proposal is to try and divert some of the produce on the 1500-2000 lorries which leave Spalding every day onto the railway. According to the feasibility report for the project, the Park offers scope to attract more than £200m of investment into the local economy, creating up to 4,400 jobs on site. (see boxed text below).

Spalding International Food Hub Proposal (from the South Holland District Council Website)¹

Major food businesses within South Holland are enthusiastic about the proposal to site an international food distribution hub with rail links in the district.

This 'hub' should it be successful could secure existing businesses and create hundreds more jobs in the district. The proposal has already received support from the major national retailers. Network Rail is spending around £240 million improving the local infrastructure to divert rail freight traffic from the East Coast Main Line to the Joint Line to enable them to create additional passenger traffic on the East Coast mainline.

South Holland District Council, along with other Lincolnshire partners, has been working to make sure that the district and the environment benefits from this upgrade. In addition, the partners hope to make use of the expanded timetable in the future to be able to divert a proportion of South Holland's HGV traffic onto rail. Figures taken recently show that between 1500 and 2000 lorries a day leave South Holland for the major distribution centres.

Bruce Wakeling, South Holland's Economic Development Manager said:

"The Network Rail upgrade will happen over the next three years and it is our responsibility to make sure that the district gets the maximum benefit from this. One of the major opportunities to us is that we can use some of the available freight timetable to create a 'hub' where locally produced products are transported by rail instead of road.

"This has the potential to reduce the number of HGVs on our roads and create benefits for our local businesses which will have a knock-on effect in terms of both new jobs and existing job security. In addition, fresh produce which currently arrives from Italy and Spain by road, could be brought by rail, considerably reducing the number of lorries on our roads."

Cllr Howard Johnson, Portfolio Holder for Economic Development said:

"Although delivering this 'hub' is not part of the current Economic Development Strategy, this opportunity is something we cannot miss. Such a facility will help anchor local businesses to South Holland, reduce HGV traffic and potentially create hundreds of additional jobs and attract other major businesses to the area."

¹ Downloaded from

<http://www.sholland.gov.uk/SHDCCMSInternet/Templates/GeneralContent.aspx?NRMODE=Published&NRORIGINALURL=%2Fnews%2Flates%2Finternationalfoodhub.htm&NRNODEGUID=%7BFCEBCDB0-C832-4967-99BA-04FC54699844%7D&NRCACHEHINT=Guest> [accessed July 2010]

Appendix 8 – Conclusions of the Fruit and Vegetable Task Force (August 2010)

The Fruit and Vegetable Task Force was set up in October 2009 to increase consumption and production of domestic fruit and vegetables in England. This task force tackled issues such helping farmers compete better and how to reach out to young people and low income families to increase the fruit and vegetables in their diet.

The task force [reported](#) in August 2010 and it identified a range of low cost proposals to remove the barriers to increased domestic production and consumption of fruit and vegetables. These proposals focus on:

- Removing regulation;
- Sustaining R&D capability;
- Improving skills and attracting new entrants in to the industry;
- Encouraging collaboration;
- Improving supply chain relationships;
- Expanding market opportunities;
- Changes to existing Government behaviour change campaigns;
- Encouraging industry promotions;
- Aligning VAT with the 5 A Day objective;
- Supporting Grow Your Own.