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MAIN REPORT

Agriculture in Aberdeenshire
looking to the future

Scottish Enterprise

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INTRODUCTION

This report was commissioned by NESAAG (the North East of Scotland Agriculture Advisory Group), Aberdeenshire Council and Scottish Enterprise. Aberdeenshire Council has periodically commissioned reviews of the position of agriculture in the area, the last being for the period to 2003 (see http://www.aberdeenshire.gov.uk/support/agriculture/future.asp). The current work updates this series for the period 2003 to 2007. However, in addition to the usual statistical review of agriculture this study presents a strategic review of the position of the industry, looks more widely at links into the rural economy and the food and drink sector, tries to look at future prospects and challenges, and presents recommendations for action.

The report is structured into an analysis of the trends in agriculture in Aberdeenshire over the 2003 to 2007 period, a review of the wider rural economy within which agriculture operates, reviews of the major processing sectors, an analysis of labour and skills issues, a brief look at the land market, analysis of some of the major policy challenges facing the industry, financial forecasts for real case farms and finally, to pull all this strategic analysis together, a SWOT for Aberdeenshire. To assist in thinking ahead, drivers of change for the next 10 years and possible scenarios for the industry have been identified. Finally we have pulled together some recommendations, both for industry action and specifically for the commissioning organisations. These are not definitive, but aim to stimulate discussion within the local industry, which can then lead to joint action.

Agricultural statistics are drawn from the SGRPID June census, the EU Farm Structure Survey, the Scottish Government Economic Report on Scottish Agriculture and Scottish Agriculture – Output, Input and Income Statistics. Where possible all data has been broken down into the six administrative areas of Aberdeenshire (Banff and Buchan, Buchan, Formartine, Garioch, Marr, Kincardine and Mearns) plus Aberdeen city – see the study area map at Appendix 1. A standard methodology, used in previous Aberdeenshire studies, has been used to estimate the value of output. Desk research and interviews have been used throughout the study. Farm models based on real Aberdeenshire farms were used to forecast future profits so that the financial impact of change on real businesses could be assessed. Three case studies (farm, diversified farm, processor) have also been presented to show how the strategic issues highlighted in the report have been reflected in real businesses. Two workshops were held; one on labour issues, and a larger workshop on scenarios for the future of the industry in Aberdeenshire.

The business environment is changing rapidly. This report was prepared using the best assumptions available during the summer of 2008, a period during which grain, beef, lamb and milk prices had improved, but input costs (especially fertiliser and fuel) were increasing faster. The “credit crunch” was clearly becoming a major issue in the economy, though it had not as yet hit the local property market.

This study covers agriculture within the Council areas of Aberdeenshire and Aberdeen City. This is what is referred to when the terms “Aberdeenshire”, “region”, “area” or “study area” are used within the body of the report. All statistics are for this Aberdeen City and Shire area unless otherwise stated.

CONCLUSIONS

(i) THE STRATEGIC POSITION OF AGRICULTURE AND ITS RELATED SECTORS

(a) *Agricultural Trends*

Aberdeenshire continues to develop two types of agriculture, with growth in larger commercial units and also in small non-commercial units, while middle size units decline in number. Probably half of all farms (totalling some 4,000 occupiers in 2007, operating 7,122 holdings averaging 73 ha) earn an insufficient level of income from farming to support a family, and certainly an income less than a typical local wage. 44% of holdings are under 10 ha.

The size distribution of farm businesses is complicated by the facts that land area has to be adjusted for quality, that occupiers operate in many cases several holdings, and that there are various forms of seasonal letting and contract arrangements. Business size for the 3,000 or so Single Farm Payment (SFP) recipients may on average be closer to 170 ha (420 acres). Based on the Economic Size Unit (ESU) measure, Aberdeenshire has more “commercial” businesses than Scotland as a whole, and productivity (output value per worker) is higher than the Scottish average.

It is known from previous studies (Dalton 1994) that hobby farmers and smaller part-time farmers do not by and large grow intensive crops or keep livestock intensively and that their land supports a greater degree of biodiversity. They are more likely to keep horses and less intensive forms of cropping and livestock as well as to rent out their land to more commercial and larger farm businesses, mainly as seasonal grazing lets. The efficiency of the tenure system, including short-term lets and contract mechanisms, is thus important to both groups of farms. There is a whole economy based around the hobby sector which helps to indirectly support mainstream farming suppliers and infrastructure.

At the commercial end of the spectrum a relatively small number of farms are generating a large proportion of the region's agricultural output. For example, around 70 pig units (equivalent to 2% of Aberdeenshire IACS (Integrated Administration and Control System) businesses) account for 15% of Aberdeen City and Shire total farming output. We do not have output figures for individual businesses, but we would expect that around 300 farming businesses (10%) account for at least 40% of City and Shire agricultural output. Note that this excludes subsidy. Given that subsidy has been directed at beef and combinable crops, total farm output including subsidy may be slightly less concentrated.

Just over half a million hectares of land (1.3 million acres) is farmed, and this is apparently increasing very slowly each year. We do not know why, though this may reflect increasing registration of land for SFP purposes, which then finds its way onto census forms. The area of rough grazing accounts for a third of the total (425,000 acres) which leaves 777,000 acres of crops and grass with half the area in each category.

The proportion of cropped land within the arable total has fallen only slightly in the last five years, with the highest cropping ratio in the better farming districts, such as Formartine (63.35%) and Kincardine and the Mearns (59.55%). These facts suggest that changes in enterprise choice are highly constrained in the region, since relative actual and prospective prices and subsidies have changed significantly in the last 5 years, most notably the decoupling of agricultural subsidies, and the decline in cereal prices to 2006.

One of the reactions, however, to low cereal prices was that the area of set aside and fallow was greater than in Scotland as a whole; this is now an opportunity for the region to profit from higher commodity prices.

The predominant crops are combinable (mainly cereals and oilseed rape). Aberdeenshire is an important cereal producing area, growing a third of Scotland's total area of barley and oilseed rape. There has been a shift towards winter cereals, reflecting the higher potential yields and returns from such crops, helped by the fact that rape is an excellent entry crop for winter wheat. It is also a way of spreading the fixed costs of increasingly expensive machinery. These benefits are obviously seen as outweighing the risks of adverse harvest conditions in the region, which can be catastrophic. Specialist fruit and vegetable crops occupy a very small area, but have increased sharply recently. These may be green shoots of a shift to a wider range of crops which are becoming more difficult to grow further south where water supplies are costly.

The growth in farm woodland area probably reflects the effect of the Challenge Fund grant scheme and the low opportunity cost of land during the last 5 years. This has now changed. This higher opportunity cost also applies to other conservation uses of land although the growth in hobby farms may compensate.

Farming in Aberdeenshire is relatively intensive and mixed. Almost half the grass area is mowed (only a quarter in Scotland as a whole) and stocking rates are double the national average. The full range of Scottish enterprises is represented in Aberdeenshire, unlike almost all other Scottish regions.

Whereas the area devoted to potatoes, mainly for seed, is relatively small at 4,700 ha, and is practised predominantly by a few large businesses, the value of the output is an important one for the region (15% of total output 2007).

Despite the turbulence in market prices, disease outbreaks and export bans, the total cattle population has remained surprisingly stable, and more so than in other parts of Scotland. While the beef breeding herd has declined slightly, finishing cattle numbers have actually increased.

25% of Scotland's feeding cattle are to be found in the region but only 15% of the beef breeding herd and 5% of dairy cows. Depending on assumptions about the number of calves reared per annum per cow, replacement rates and the lifespan of feeding cattle, something like 30% of the store cattle requirements are imported into the region from elsewhere (mostly from the rest of Scotland given the premium on Scottish reared beef and the Scotch Beef definition). This means that Aberdeenshire (especially its renowned cattle breeders) have a great interest in effective bio-security measures for animal diseases such as Johnes, BVD, TB, Foot and Mouth and Blue Tongue. The same point applies to the import of store lambs and breeding sheep into the region as well as their export.

The small dairy herd has continued to contract, more than reflecting increasing yields, but also a lack of profits. Output has fallen by almost a fifth. The number of dairy cows has halved since 1998. Breeding ewe numbers have also contracted. The pig herd has remained fairly stable until recently, with almost 60 % of the Scottish herd, mainly to be found in a small number (around 70) large businesses. The poultry sector has more variable stock numbers and in 2007 has contracted by more than flocks elsewhere in Scotland.

These trends are associated with very little change in the stocking rate of ruminants per forage hectare (at 0.9 cattle per forage ha) as both livestock numbers and grass area have remained stable. Finishing cattle have been fed a greater proportion of cereals during an era of low cereal prices but this does not show up in the rather general census data. Very high cereal prices will have two opposing effects on stocking rates. On the one hand, there will be an incentive to plough up grass land and stock grass more heavily. On the other, there will be an incentive to feed more grass and forage to substitute for expensive cereals. Part of the reaction may be to finish cattle at lighter weights and/or to reduce cattle numbers.

The district data, showing changes in the distribution of livestock within Aberdeenshire, provides evidence of a concentration of cattle finishing, dairy and pigs in Buchan and Formartine and poultry in Banff and Buchan and to a lesser extent in Formartine. In so far as many of these livestock are now kept in larger units then the potential for pollution and meeting the constraints of NVZ's could become more problematic. This movement is a manifestation of a business expansion strategy as a way of spreading fixed costs in the face of inexorable rises in input prices relative to product prices - a situation that seems to be resuming even with higher current product prices.

Shedding labour has also been a long-term strategy for improving profitability. This has produced three noteworthy developments: smaller full-time workforces on farms and a greater use of and dependence on contracting services and latterly casual labour; a greater dependence on family labour; and an increasingly part-time workforce. There are now more part-time occupiers than full-time ones especially in Buchan and Garioch. The number of part-time staff has actually risen in the last 5 years while the number of full-time staff has fallen - a trend seen throughout Scotland.

At the same time, it is probably the case that both occupiers and the work force are getting older as young people do not enter the industry while older occupiers and workers find it difficult to leave. Those still engaged in the sector probably have less work capacity.

The consequences of these trends is that staff and occupiers need to have a wider range of skills and are less likely to be found on their farms for much of the normal working week.

Overall in the 2003 to 2007 period, the industry has continued to polarise in terms of size distribution, to extensify in terms of slightly reducing crop and stock numbers, specialise in terms of shifts of enterprises to particular areas/ farms and to contract in terms of labour and especially employees.

Output volumes of almost all enterprises declined slowly over the 2003 to 2006 period and jumped in 2007 in response to better prices. Output value was fairly static in the 2003 to 2005 period (probably falling in real terms) then increased sharply thereafter as prices, especially of grains, increased sharply. These trends mimicked the Scottish pattern.

Overall, cereals (even when ignoring the value of grain fed on farm) provide the biggest share of output in Aberdeenshire (27%) with beef second (22%).

Aberdeenshire is more reliant on subsidy (38% of output) than Scotland as a whole (35%). The beef sector, a key sector locally, may be especially sensitive to subsidy changes as it was a major recipient of direct payments and, according to QMS net margin data for 2006, is unprofitable for the average producer if subsidy is excluded.

(b) ***The Wider Rural Economy***

Despite the importance of Aberdeen and the oil industry, employment in agriculture, hunting and forestry is double the Scottish average. As a share of regional employment, agricultural employment is only just over 2% of the total, but ranges up to 6% in the most highly agriculturally employed areas.

Forestry is a small employer, but the area under woodland has increased to the Scottish average of 17% of the land area. The tourism sector is improving occupancy rates at the same rate as the rest of Scotland if not better (especially when Aberdeen City is included) and there has been a successful shift from business travel dependence to tourism trips. The food sector in Grampian is important, providing around 10,500 direct jobs (30% of the Scottish total, compared to less than 14% of Scottish agricultural labour), 30% of Scottish food and drink exports and 20% of the Scottish food gross value added.

Aberdeenshire's rural economy is typified by population growth, even in the remotest areas. There is a high in-migration rate – 12,340 since 2002/03 by one measure, 30% of these from the Central and East European countries. Wages exceed Scottish and UK averages, as do economic activity rates and business participation rates. The high rate of production and construction jobs suits part-time and ex-farm workers. The only "deprivation" is in access to services and amenities (42% of Scotland's most poorly accessed data zones). There has also been a big drop in rural services (20% fewer rural shops since 1981, 65% fewer petrol stations) which is not a problem to the wealthy, but may be for the poor and immobile. Farm diversification is happening, but is patchy. The easiest diversification is an off-farm job.

(c) *The Processing Sector*

The agricultural processing sector is very important for Aberdeenshire. It provides ready markets for farm production, adds value to primary produce, provides employment (often rural), develops an understanding of markets, and makes a contribution to the wider rural economy. Without a vibrant thriving processing sector, Aberdeenshire farms would be disadvantaged. Enterprises which have bulky or perishable produce which is costly to transport or must be processed rapidly, will disappear if there is no local processing capacity. This was the case for Howegarden (vegetables), Harlaw Fruit (field strawberries) and has been partly true for the milk sector.

There is a symbiotic relationship between farms and processors: both are inter-dependent on each other. Processors have concerns over future supplies of quality raw materials from farms. Many fear farms may scale back production volume as a response to decoupling of subsidies and poor unsubsidised margins.

This is true of the red meat sector which is especially strong in Aberdeenshire. The four local abattoirs have increased their share of the Scottish beef and lamb kill from 37% and 30% respectively in 2003 to 42% and 41% in 2007.

The grain handling and processing sector in Aberdeenshire is in an expansion phase with growth in maltings, a well established feed milling industry and excellent port facilities for exports.

The long-term trend in the processing sector is towards increasing scale, to lower costs and increase competitiveness. The question is whether local processors can stay competitive or will capacity be displaced elsewhere to a larger more centrally located plant? The region has lost processing capacity in many sectors (pigs, poultry, potatoes and milk).

Across all processing sectors, firms report rising costs, a squeeze on margins and low profitability. This is affecting their ability and confidence to undertake much needed reinvestment.

The dominant power and influence in the food chain is the major multiples. Local processors are vulnerable to changes to the procurement policies and requirements of individual supermarkets. Market expectations and specifications are increasing as consumers become increasingly more sophisticated.

The supply and availability of labour is a key issue. The region has a very tight, competitive labour market. Recently the processing sector has relied heavily on immigrant workers from the new EU accessions countries (typically making up 30% of the workforce). There is now evidence that this supply is declining.

Climate change and the reduction of greenhouse gas (GHG) emissions are anticipated to have a major impact on the sector. The new proposed Scottish Climate Change Bill sets very ambitious targets for an 80% reduction in GHG emissions. At present the sector is unsure how to respond if the bill is enacted. It would require considerable support for any major mitigation strategy such as large scale heat recovery or generating energy from waste.

There may be opportunities for some innovative added-value products. Local processors currently perform very little secondary processing or added-value activities (e.g. ready meals, cooked products, cultured dairy products). For some sectors, the best location for these activities is close to the major customers in England and the central belt. To capture any potential opportunity will require market research, additional investment in plant and staff training. The growth of new businesses may actually provide the vehicle for this added value activity, rather than grafting on to existing large commodity businesses.

A sustainable processing sector will depend on its ability to enhance competitiveness mainly by driving benefit from distinctive capabilities and delivering higher market value from a more collaborative supply chain. Processors will have to play a lead role in forming shorter, more dedicated supply chains both up and down stream. This is also consistent with the Scottish Government's strategies for both agriculture and the food and drink sector.

(d) *Skills and Capabilities*

Higher education for the agricultural sector is in terminal decline, with the University ceasing its agriculture degree and SAC carrying very few students.

Further education is stronger with more students, but its viability is hampered by the need to provide a high degree of flexibility in methods of study, while only attracting small numbers. There are fears over the future of Craibstone and the quality of provision if its courses are provided by another education establishment such as RGU. Aberdeen College at Clinterty have no agriculture students.

Training is driven by legislation rather than business or staff development. Training migrant workers is an important issue as are the gaining of skills/ certification to allow working outwith agriculture (for example machinery operating certificates for building sites). Ringlink and to a lesser extent SAC dominate.

The following key points from the skills and capabilities workshop summarise the view of the industry on the labour issue.

The problem

- In the view of the workshop participants qualitative and skills considerations are of less immediate importance than sheer availability of people and making the work attractive. May see change with construction downturn however.
- All comes back to profitability and unattractiveness of traditional farm work
- Need modern ways of working to attract people, but difficult for NE livestock sector to make changes
- Image issue; not seen as the high tech sector it truly has become (seen as mud and muck when it is actually often computerised recording and high tech machinery)
- With the background of attractive wages elsewhere, it is cheaper/easier to deploy capital than employ labour, hence mechanisation, buildings, etc.
- Migrant labour been a short-term fix, not a long term solution as they trade up to better jobs and/or return home
- Decline of local NE education centres which were once a source of supply (but, Oatridge, Barony seem to be doing better – why?)
- There are plenty interested young folk – getting them to commit and stay is the problem
- The shortage of labour constrains the ability of businesses to release staff for training; it is thought that this impacts on the young particularly.

Training and Skills Provision

- The industry often cannot see the benefit of training to the business. Partly because the whole training structure (Ringlink, SAC) is geared toward statutory/ legislative compliance, not about developing people and businesses. Need farmers and trainers to shift to workforce development and sell it.
- Also there is no true market in training – it is all subsidy driven. Training organisations just follow the subsidy? Therefore no evaluation of business improvement from training, just compliance with regulations.
- The lack of flexibility in the industry's ability to access training puts the onus on the providers to offer sufficiently flexible or appropriate provision. This demands a relatively

high level of infrastructure (staff, admin time, facilities) which may be difficult to maintain given current uptake and pressures.

Solutions

- Need to change the shape of farming businesses and job profiles to attract people. Cannot expect to provide a 1960s work environment and attract good people who have 21st century alternatives.
- More innovative ways of contracting staff are required. Work patterns and employee expectations have changed e.g. annualised hours, so that a worker can work very long hours at calving or harvest, but then be free for parts of the year to work elsewhere, may suit both the business and employee.
- There is a job to be done in promoting the industry – part of the food sector, technical skills, healthy lifestyle. Innovative or flexible approaches to employment may enhance this.
- Need for some modern form of apprenticeship structure and development of staff in the job; this should be targeted at the range of entrants, which includes a more mature group.
- Lack of leadership – need to get all training/ education organisations working together, and then industry would come in and back it and its initiatives. Industry involvement is essential strengthening relevance and buy-in. Real bit of work to be done here.

(ii) THE MEDIUM-TERM OUTLOOK

(a) *Farm Models*

Model Farm Net Profits (£) 2006 to 2009, by farm type

	2006 actual	2007 actual	2008 budget	2009 guesstimate
LFA cattle and sheep	23,000	31,000	22,500	9,700
Finisher	30,000	57,000	43,500	22,900
Cropping	9,600	32,900	67,800	42,300
Pigs	(23,000)	(140,000)	(153,100)	(3,000)
Dairy	25,500	50,000	74,500	49,000

After years of mediocre profits, 2007 and 2008 saw substantial improvements in all our model farms, except the pig unit. The mixed nature of farming in the region meant that most farms benefited to some extent from the sharp rise in grain and oilseed prices. Cost increases (especially the trebling of fertiliser and fuel costs) have taken part of the shine off 2008. However, the outlook for 2009 is worse with the fuel, fertiliser and feed price rises plus higher working capital requirements returning profits to 2006 levels for finishers, and severely reducing profit for our upland farm example. The cropping and dairy units are expected to see profits fall from the 2008 peak, but still benefit from cereal and milk prices which are well above 2006 levels. The pig unit figures tell the story of a real crisis – depressed pig prices and rocketing feed grain and protein costs. By 2009 the long awaited price response to reduced supply only just takes the business back to break-even.

These figures suggest the boom will be short lived, but there will be opportunities in systems which allow input reductions. The figures also tell us that we are in a new era of volatility and higher risk, which has implications for the entire food chain.

(b) *Aberdeenshire Agriculture Sector SWOT*

A full SWOT is presented in the main body of the report. Headings are presented below.

The Strengths and Weaknesses which follow are **internal** and **existing** features of the industry in Aberdeenshire. The Opportunities and Threats are **external** pressures which we judge are most likely to have an impact on the industry in **future**.

STRENGTHS

- Surprising resilience of all sectors (except milk) through a period of lowest prices, disease shocks, export bans
- Strong Balance Sheets due to a very strong property market
- Enterprise mix. Has all the enterprises found in Scotland from soft fruit to laying hens. This provides a wide range of benefits
- Land quality. Clearly Aberdeenshire does not have the best soils in the world, but the bulk of the farmed area in the region can grow a range of crops and forages
- Range of size of units and in land ownership
- Consolidation in beef and lamb finishing (25% of Scotland's finishing cattle are in Aberdeenshire and the number has been increasing)
- Red meat sector infrastructure
- Livestock breeding skills
- Signs of ability to adjust to changing markets
- Northern climate. Traditionally this has meant healthier seed crops and livestock
- Space. This is the largest contiguous block of farmed land north of Yorkshire
- Strategic geography (distillers, ports)
- Critical Mass. The North East has been big enough to attract and maintain a range of suppliers and buyers
- Cohesion. Commitment, enthusiasm, entrepreneurial spirit, openness, large range of local industry organisations
- A very vibrant agricultural co-operative sector with 12 co-ops active in Aberdeenshire
- Capable people
- Not as heavily reliant on LFASS as other regions, except Marr which receives 52% of Aberdeenshire LFASS and has the highest receipts per business
- CAP Health Check progressive modulation may be little more of a threat than the existing planned Scottish Voluntary Modulation and affects very few businesses (160)
- A strong local economy
- Proximity to a major city (Aberdeen)
- Little officially measured "deprivation" in rural areas – only in "access"

- Strong food and drink sector; 20% of Scottish food sector employment, 30% of Scottish food and drink exports, 20% of added value
- Tourism sector not large, but when the city is included it is doing at least as well as rest of Scotland and making transition from business visitors to tourists
- Environment, conservation and biodiversity (mixed farming, spring cropping, pockets of poor land, small farms, scheme skills)

WEAKNESSES

- Resilience is subsidy dependent. For example beef prices have improved over 2007/08, but if the farm Single Farm Payment is ignored, most beef herds are still losing money
- Subsidy distribution is skewed. In Aberdeenshire around a third of the SFP is received by only 8% of the farm businesses
- Intensity = high costs
- Inherently higher costs of production than in the more climatically advantaged areas of Europe and the rest of the World
- Distance from main markets; increases cost, reduces market knowledge
- Poor understanding of implications of world market changes for farming in Aberdeenshire
- Labour – difficult to recruit and keep good livestock workers
- Weather
- Increasing overall risk (more winter cropping and wheat, high input costs and hence high working capital, volatile end prices, declining property and consumer markets, decoupled and declining subsidy)
- Little technical improvement over the last 20 years, especially in the cattle and sheep sectors
- Low technical ability in cropping
- Lack of management capacity to cope with legislation and RDP opportunities
- Lack of investment, especially in marginal land
- Low margins and low added value in the processing sector
- Loss of chunks of the processing sector e.g. milk, pigmeat, poultry, potatoes
- Education and training; diminishing supply locally, driven by legislation not development
- Research. Loss of local specialist skill base
- Intensive cropping and livestock enterprises seem to be shifting to Buchan and Formartine; creating problems with NVZ and environmental compliance?
- Environmental scheme payments do not match current margin losses

OPPORTUNITIES

- Seed and breeding stock
- Soft fruit and protected crop expansion
- Reclaiming marginal land
- GMOs, livestock growth enhancers and a wide range of technical improvements
- Malting market expansion
- Generic quality development
- Building a better fit to markets (finding niche markets, getting closer to processors and retailers to reduce costs and increase proportion of output hitting specifications, value added processing)
- Meat sector rationalisation/consolidation
- Waste
- Climate change
- Renewables, biofuels and biomass
- An Aberdeenshire ”Workforce Development Strategy”
- Sell local skills globally
- The SRDP (Pillar 2 of the CAP)

THREATS

- Being on the margin. Suppliers and buyers “Close the gate at Perth”?
- Disease, especially livestock disease
- Still higher cost of power; transport, farm fuel, fertiliser
- Reduction in range of chemicals and veterinary products due to EU legislation
- Increased regulation, increasing costs and stopping some activities
- Reduction in Single Farm Payment and shift to flat rate SFP
- Loss of processing sector
- Reduction in Scottish cattle numbers and impact on meat processors based in Aberdeenshire
- Global competition and liberalisation of world trade, especially beef
- Severe lack of labour and more restrictions on migrant labour
- Carbon footprint of ruminant livestock systems
- Climate change

- Capital tax changes
- Stricter planning policy toward farm buildings, steading conversions, diversification, renewable energy
- Loss of skills, education options, research and quality of advice
- Recession in the UK and global economy – impact on premium products like beef and on property prices

(iii) THE LONGER-TERM FUTURE

In a Scenario Planning Workshop participants were asked to list all the factors which would drive the future of agriculture in Aberdeenshire over the next 10 years. These were ranked and four scenarios for the future constructed from the most important drivers.

The top five areas selected by the participants as drivers of the shape of agriculture in Aberdeenshire over the next 10 years were;

1. Balance between commodity prices and input costs and impact on profitability
2. The impact of the UK and world economy and globalisation trends
3. Staff/ people issues, especially sheer availability, skills and business view
4. Unpredictable events such as BSE, FMD, climate change
5. CAP and Government/ EU policy

Receiving fewer votes were infrastructure issues (rendering facility, agricultural holdings legislation) and the average age of farmers.

Four scenarios for the future of agriculture in Aberdeenshire were constructed. The group titled these “Mercedes Country”, “Survival of the Fittest”, “Treading Water” and “Tatties Ower The Dyke”. These are fully described in the body of the report.

Perhaps the main conclusions from the scenarios were as follows.

- Despite the current prominence of global issues, there are **real local drivers** of future prosperity in this sector. These include infrastructure (roads, rendering facilities, the water distribution network to allow benefits from climate change in terms of irrigated crops, planning controls on diversification), the regional “brand”, labour supply and skills, the local education and research base, the sheer ability of local producers/ suppliers / processors and, for some, exploiting local niche markets,

- **Change is the new constant**. One of the comments from participants in the scenario planning workshop was that over the next 10 years we could experience several of the scenarios. “Change management” becomes critical; having access to market information which helps predict when change will happen, maintaining a mixed business, knowing your costs of production, making fixed costs variable, protecting prices, correctly timing investment. The industry lacks many of these skills.
- The shift to **part-time farming** remains a feature of all scenarios. Mechanisms to achieve this transition while still allowing active farming and continuity of supplies to the processing and food sector will be important for Aberdeenshire. Machinery rings have had a major part to play so far.
- Several of the scenarios put the processing sector, especially **meat businesses**, under severe pressure. Actions which can reduce their costs and which can help them tie into premium markets are clearly important. A contingency plan or impact assessment for the loss of one red meat plant needs to be considered. Likewise the loss of the only Scottish pigmeat plant needs to be actively considered.
- One axis of the scenario planning framework is about the **ability of the people in the industry to compete**. However, the region has lost its University agricultural degree, SAC are likely to leave Craibstone and have already shifted most research and specialist advisory staff to Edinburgh, and Clinterty has no agriculture students. Training is almost entirely on statutory requirements. No body is coordinating or capturing the lessons from the range of development programmes (Monitor Farms, etc). One example; a surprisingly large proportion of the farm managers in Aberdeenshire have the “FBOM” farm business management qualification, but this course no longer exists.
- The impact of different scenarios on **biodiversity** and perhaps even water quality is poorly understood. On the one hand, it is felt that the more prosperous and larger businesses will have the ability to invest in the environment (especially through schemes), while others feel that smaller part-time farms which tend to adopt more extensive livestock and spring cropping systems are inherently better for biodiversity whether they are in schemes or not.

RECOMMENDATIONS

1. What needs to be done?

There are unlimited possibilities for action, but to secure a prosperous future for agriculture and its related sectors in Aberdeenshire, the following are priorities. These actions are aimed at all organisations and businesses in Aberdeenshire.

Major technical improvement. To survive "on the edge" Aberdeenshire farmers need to be better than average performers. The drive for technology and knowledge transfer needs to continue. The gap in business skills and world understanding needs to be plugged.

Risk management. The industry needs ways to cope with the much higher risk caused by volatile world markets, especially as the EU has moved to less market support and reduction of tariff barriers. This includes looking at mixed systems which reduce reliance on one output and reduce input needs, brand loyalty and closer links to consumers, marketing strategies such as hedging prices and using pools, investigating crop and livestock insurance and lobbying policy makers.

Reducing subsidy reliance in the beef sector. Some herds are making profits without subsidy and the rest need to learn from the best. A lot can be done on cow type, feeding systems, organisation of systems and genetics for growth rate and eating quality. Cows in some areas may never be profitable without subsidy, but provide other public goods – this needs to be confirmed or otherwise and communicated.

Build labour and management capacity. A comprehensive programme for attracting labour, developing skills, management training and succession training is required. It does not exist at the moment and any programmes are piecemeal.

Strengthen the processing sector. Joint action on waste, regulation, planning and regional infrastructure might be important. Contingency planning for the loss of one red meat plant and the loss of the last Scottish pig processing plant may also be important. Sourcing labour and developing migrant labour are important issues.

Expand our range of markets. A thriving industry needs a range of routes to market (commodity, niche, retail, food service, small processors, large processors, export, added value outlets). It also needs new outputs – new high value crops, renewables. And overall it needs a good understanding of what consumers of all types want.

Invest. The whole industry needs to invest. On-farm infrastructure has been deteriorating until very recently. Poor buildings, handling systems, roads, drainage, fencing, soil nutrient status are holding back productivity. Abattoirs are ageing. Investment is needed in new technology e.g. automatic weighing systems and heat recovery driers.

Improve local education and research. It is one thing to fully grasp what is already known, but the industry also needs new research, new ideas and, critically, the people who can turn complex research into practical farm improvements. A broader understanding of business and of the world economy is needed. And the industry needs to be able to update these skills periodically.

Be ready for "events". Crises are usually unexpected (BSE, FMD, credit crunch). Monitoring what is happening in the world might help predict some problems, but more important is maintaining a structure in Aberdeenshire which can share the correct information widely and quickly so that all players have good understanding of the problem, find the correct people, coordinate any regional actions, draw out lessons and help form contingency plans for potential crises.

Keep improving Aberdeenshire's environmental credentials. This is not only important for biodiversity and water quality targets, etc, but it also sells products. It is part of the Aberdeenshire brand.

2. Recommendations

Individual businesses and organisations can and should tackle many of the issues listed above. However, the continued dynamism and cohesion of the sector may well not be provided by market forces alone. Therefore in the following recommendations we have focused on **"market failures" (where individual businesses cannot be expected to take action)** and it is here that NESAAG, Aberdeenshire Council, Scottish Enterprise Grampian and other development organisations should concentrate their effort.

The following are our first thoughts on recommendations. <u>These are presented as a basis for discussion with the industry</u>. We have listed organisations that could take lead roles, but these are only suggestions at this time. Under each heading we have listed actions, who might be responsible for carrying out those actions and a timescale for the completion of that action, including how much priority should be given to these actions in terms of resources (people and money).

1. **Leadership**. With the restructuring of Scottish Enterprise, the regionalisation of the SRDP, the general trend toward geographic targeting of policy and devolution of power, there is a real need for a strong regional voice for the farming, food and land based sector. This may seem like a bland statement, but there will be a lot of policy battles to be fought and, as discussed in the report, Aberdeenshire has real "cohesion" which can be built upon.

<u>Actions</u>

- Continuation of NESAAG in its monitoring and information role at a strategic level
- Communication of this role to NESAAG members so that it is seen as the first port of call for generating a regional response to strategic threats and opportunities
- Promotion of NESAAG to policy makers
- An agricultural/ land sector voice on ACSEF (Aberdeen City and Shire Economic Forum)

<u>Responsibility</u>

- Role and promotion of NESAAG; NESAAG chair, vice chair and secretariat
- ACSEF; Aberdeenshire Council economic development staff and SEG NESAAG representative

<u>Timescale</u>

- Over the next 12 months
- Resource priority; HIGH

2. **Maintaining and building the role of NESAAG**. The world is changing very rapidly and in this environment there is a need to monitor and interpret what is happening on an ongoing basis. There is a need for impartial and accurate analysis and for a forum which then develops a common view of regional interests. Overall Aberdeenshire needs a mechanism which allows businesses and organisations to improve their strategic understanding and to allow the region to punch beyond its weight in corridors of power. This is part of the risk management activity described earlier.

<u>Actions</u>

- An annual update of the position of agriculture and rural sectors. Could simply take the form of an arrangement with SGRPID statistics division to automatically update the census data, as structured in this report, for Aberdeenshire on an annual basis.
- A biennial rural forum in which all the interests represented on NESAAG are invited to briefly present the position of their sector. This could include farming, trade, primary processing, food sector, forestry, environment, land based tourism,

renewable energy. Every second year this would provide a simple position statement for the sector and how it is changing, informing the wider industry and informing policy makers.

- Ad hoc meetings of NESAAG or sub-groups when crises strike the industry.

Responsibility

- NESAAG and secretariat
- Feedback from NESAAG members

Timescale

- Establish over the next 2 years, and then ongoing.
- Resource priority; MEDIUM

3. **The Aberdeenshire brand**. This is a food exporting region with a quite unusual production environment (densely mixed farming, high environmental credentials, cultural cohesion, strong traditions and enthusiasm, strong links to world brands like scotch whisky and Aberdeen Angus and Royal Deeside, long established processors, good communication links via Europe's oil capital), but which might not be that well known or understood, especially outside the beef sector. Working with others to build this overarching brand image could help all added value sectors and provide a hook for local processing (as does "Scottish" on a national scale). This regional branding may be covered by "Grampian", for example through the Grampian Food Forum. Any shift in regional branding may be a threat for areas like Moray which fit under the Grampian banner. However, this study has highlighted a very strong Aberdeenshire identity. Overall we feel there is a very important task in continuing to build national and indeed international understanding of what is unique and interesting about this area.

Actions

- A review of the Grampian and Aberdeenshire brands; how do they add value and how well are they understood and where can improvements be made?

Responsibility

- SE and Aberdeen City and Shire Councils
- Grampian Food Forum
- Role for LEADER programme?

Timescale

- Over the next 2 years

- Resource priority; LOW

4. **Tackling common interests in the meat sector**. This is a key sector for Aberdeenshire. Priority must be dealing with the cost of waste disposal (the knackery issue) and finding markets for the fifth quarter. There may be other common interests such as generating on-site energy to reduce power costs, or common responses to threats such as full cost recovery in the Meat Hygiene Service. Involving new and small meat businesses in this forum must be important.

Actions

- A joint meat industry meeting on waste and regulatory costs; are there common strategies which would benefit many local meat businesses?
- Meat sector to consider the need for a Meat Industry Forum
- Contingency plan for loss of Scottish pigmeat processing plant

Responsibility

- Meat industry
- NESAAG as facilitator?
- Aberdeenshire Council Economic Development and SE
- Scottish Pig Producers for pig processing contingency plan

Timescale

- Over the next 12 months
- Resource priority; HIGH

5. **An environmental strategy**. The study has thrown up a conflict over what promotes biodiversity and a quality environment e.g. water quality. Is it the widespread adoption of schemes and compliance, or is it particular practices and structures which have little to do with schemes? This is economically important because the environment is increasingly "sold" in the package of benefits in a product purchased by a "wealthy" consumer, and because it is a central reason for the growth in tourism in the region. There is a need here, perhaps in stimulating work by environmental organisations, to understand cause and effect. This helps in responding to policy consultations and in building the local brand.

Actions

- Task environmental organisations to answer this question; "What has most impact on the quality of the Aberdeenshire environment; common practices (e.g. spring cropping, rotations, low intensity part time and hobby farms) or adoption of specific measures under environmental schemes?" Could be a NESAAG meeting topic.

Responsibility

- NESAAG and member environmental quality organisations (SNH, RSPB, SEPA)

Timescale

- Over the next 18 months
- Resource priority; LOW

6. **Beneficial Linkages**. A number of interviewees have mentioned the value of linking food, tourism, the new core path network, environment sites, woodlands and farm based crafts and galleries. The food trail concept is well established. Could this approach be extended? The relevance for the Council and SE is their ability to bring the range of interests together and perhaps to access funding.

Actions, Responsibility and Timescale

Could initially be tackled in a similar fashion to 5. above, but with the lead involvement of VisitScotland and rural development expertise e.g. via MLURI.

Resource priority; LOW

7. **The education and research infrastructure**. The University Department of Agriculture, SAC at Craibstone, Aberdeen College at Clinterty plus the Rowett and MLURI, once provided a larger concentration of rural education, research and specialist advice than almost anywhere in the UK. This has now largely gone and the remaining parts of the education provision are very fragile. The Council and SE are limited in what they can do, but there is a role for lobbying and for working with the remaining institutions to find innovative ways of maintaining provision in the long term. The benefits of this infrastructure are very difficult for the industry to measure, but given the pace of technological change and the need for excellent business skills to survive in a rapidly changing world, our feeling is that the area will lose competitive advantage if education and research are difficult to access.

Actions

- A joint meeting of local education and research providers with a clear remit to look at how provision could be maintained and improved and the scope for joint activity both in delivery and securing funds.
- Lobbying Scottish Government on the impact of this market failure.

Responsibility

- Lead role for industry representatives (NFUS, SRPBA, SEBG) and the delivery organisations (University, SAC, Aberdeen College) in organising a joint meeting.
- Lobby activity through planned promotion of this study to policy makers.

Timescale

- Over the next 2 years
- Resource priority; MEDIUM

8. **Knowledge and Technology transfer**. Aberdeenshire is well served by SAC and independent consultants. However, there are areas of market failure. One is learning from all the recent initiatives such as Monitor Farms and Planning to Succeed. These involve relatively small numbers of farmers. Capturing the lessons from these initiatives and getting it out to the “late adopters” or those simply unable to access one of the programmes must be important.

Actions

- As a first step pull together the wide range of local farmer controlled organisations (for example RNAS, FMA, NORGRASS, YFCs, Co-ops) to consider joint action. It is very important to work with the grass roots of the local industry and to avoid creating yet another set of meetings in an already crowded calendar. It is also important to strengthen local organisations.
- Consider an Aberdeenshire conference to present key points from these programmes to a wider audience and to generate wider press coverage.
- Look at wider sources of funding (SE Rural, Leader, company sponsorship) for a mailshot to all Aberdeenshire farmers or to assist in joint action by local farmer organisations.

Responsibility

- Local organisations with NESAAG (supported by Aberdeenshire Council and SE) providing the initial lead.

Timescale

- Over the next 3 years
- Resource priority; HIGH

9. There is a very strong demand for increased focus and involvement by the industry and supporting agencies in **workforce development**. People are the future of the industry and good workers are scarce. Whole sectors could be at risk if skilled people cannot be attracted to and developed within the industry. For example the labour problem has been a contributory factor in the decline of dairying in the North East.

Actions

- Establish a Workforce Development Action Forum led for example by Lantra (possibly based on NESAAG) as a means of progressing this and the associated actions and solutions identified in this report (changing the shape of farm businesses to provide a good work environment, look at innovative ways of contracting staff, promotion of agriculture as a high tech part of the food industry with a healthy lifestyle, modern apprenticeships and development of staff on the job, leadership to pull providers and industry together). Gathering intelligence and undertaking further targeted research as required. (LANTRA have indicated that they would be prepared to lead / co-ordinate such an initiative).
- Investigate the development of an apprenticeship/workforce development approach using either one of the coops or the NFU or some other collective grouping. There are examples of this "modern apprenticeship" in other parts of the UK, for example the Dartmoor Hill Farm Project operated via the Duchy College, Cornwall.
- Explore workforce issues and needs together with potential and actual solutions through the Monitor Farm vehicle
- Explore and demonstrate the business improvement results and other cost benefit aspects of training through the Monitor Farms programme and other targeted activity
- Migrant worker support to source, develop and retain his important workforce.
- Business update training for managers and farmers

<u>Responsibility</u>

- NESAAG may have initial coordination role, but key players are LANTRA, Ringlink, SAC, NFU and local farm/trade employers. The initiative needs to be led by the industry.
- Agricultural banks and consultants for business update training for managers and farmers.

<u>Timescale</u>

- Establish over the next year
- Resource priority; HIGH

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10. **Planning policy**. This is always a controversial area, but better understanding and on-going dialogue between producers/processors and planners must be important. The ability to financially restructure farms through development has been one reason why the local agricultural industry has remained dynamic during a time of very low margins. Now new

development opportunities are appearing in renewables. For the processing sector, often in old sites within towns, relations with planners and regulators are critical.

Actions

- A continuing dialogue between planners and industry is central to this recommendation. As part of this project the involvement of planners in both the "NESAAG Plus" seminar which launches this report and the "Support and Infrastructure" seminar specifically for trades, regulators and planners, will add to this dialogue.
- Planners invited to make a presentation on the Structure Plan and planning policy in the countryside, to one of the scheduled NESAAG meetings.

Responsibility

- NESAAG
- City and Shire planners.

Timescale

- Seminars autumn 2008, presentation to NESAAG within next 18 months.
- Resource priority; LOW

11. **Developing the Infrastructure**. For an exporting region the road, port, airport and communication network is critical. Other areas of infrastructure such as the power and water networks may also have increasing importance as a means of exporting renewable energy and supporting new crops, so a dialogue with the industry must be important.

Actions, Responsibility and Timescale

This is an ongoing activity with responsibility falling on all agricultural/ land using organisations and representative bodies to communicate the needs of the sector. Aberdeenshire and City Councils and central Government have a major role in ensuring the continued development of road, rail, port, airport, utility and telecommunication facilities.

12. **Risk Management.** As discussed earlier most of this is down to the industry. However, an area for joint action may be to investigate national or regional scale crop and stock insurance for natural/ climate/ disease disasters. This is actually raised within the CAP Health Check proposals. The North East has suffered badly in the past from bad harvests, especially in the late 1980's. Many businesses took a decade to recover from the losses.

Actions

- Investigate commercial, CAP based and Government guaranteed models.

Responsibility

- NESAAG with farm and estate representative organisations? (NFUS, SRPBA)

Timescale

- Immediate if harvest conditions do not improve. Within 1 year otherwise.
- Resource priority; LOW

PART 1. UNDERSTANDING THE CURRENT STRATEGIC POSITION OF AGRICULTURE AND ITS RELATED SECTORS IN ABERDEENSHIRE

1. AGRICULTURAL CENSUS DATA FOR ABERDEENSHIRE AND ITS DIVISIONS 2003-2007

(i) NUMBER OF HOLDINGS AND AVERAGE SIZE

Between 2003 and 2007 the number of holdings participating in the June Agricultural Census in Aberdeenshire increased by almost 180, a change of about 2.5%. This was slightly larger than the rate of change for the NE as a whole, and significantly above the all-Scottish change of slightly less than 2%.

Table 1: Number of holdings 2003-07 Aberdeenshire, Regions and Scotland

Holdings	2003	2004	2005	2006	2007	% Change 2003-07
Aberdeenshire	6,944	7,025	7,044	7,090	7,122	2.56
NE	8,490	8,587	8,623	8,669	8,700	2.47
NW	20,088	20,215	20,313	20,433	20,411	1.61
SE	8,713	8,796	8,877	8,899	8,894	2.08
SW	13,031	13,163	13,281	13,311	13,314	2.17
Scotland	50,322	50,761	51,094	51,312	51,319	1.98

The average holding size in Aberdeenshire in 2007 was a little less than 73 ha. The NE average (77 ha) was the smallest of any of the Scottish regions. Holdings in the NW were on average almost twice as large, at 140 ha although much of the area is rough grazing. The figures in Table 2 do not therefore give a fair impression of the size of farm businesses. Holding size is not a measure of farm size as there are in many cases more than one holding per farm. Table 34 lists 4,003 occupiers, so given that there are 7,112 holdings, the average business comprises 1.8 holdings. This increases farm size to 131 ha. However, there are only 3,065 SFP recipients (2005) in Aberdeen Shire and City, suggesting that average business size is closer to 169 ha (418 acres). It should also be noted that the census may not reflect who operates the land entirely accurately. For example an estate whose land is operated by a contractor under a Contract Farming Agreement will fill in the census form, as in legal terms they are the “farmer”, even although in reality the contractor is operating the land and making the decisions.

Table 2: Average holding size 2003-07 Aberdeenshire, Regions and Scotland

Average holding size (ha)	2003	2004	2005	2006	2007	% Change 2003-07
Aberdeenshire	73.86	73.05	73.22	72.74	72.71	-1.56
NE	77.02	76.18	76.41	76.67	76.99	-0.04
NW	103.61	102.74	101.99	104.09	103.77	0.15
SE	141.63	141.54	140.16	140.46	140.04	-1.12
SW	119.04	117.08	116.10	118.19	117.48	-1.31
Scotland	109.70	108.69	107.97	109.42	109.07	-0.58

Between 2003 and 2007 the average holding size in Aberdeenshire fell by over 1.5%. In the NE and NW, the reduction was very much smaller, whilst in the SE and SW rates of loss were again more than 1%. This is perhaps surprising in view of the financial pressures faced by the sector in this period, but is evidence of a well established trend in Aberdeenshire towards “hobby farming” and “horsiculture”, often by wealthy in-migrants who earn their living outside the farm. While reliable data on numbers of horses in the area is difficult to find, we believe that a BHS survey suggested that Aberdeenshire has the highest number of horses in relation to population of any region outside Newmarket. The increase in number of holdings and fall in average holding size may also reflect the registration of pieces of land previously outside the IACS system which are now being used to support traded SFP entitlements (individuals buying entitlements and then leasing “free” hectares to support them).

Within Aberdeenshire, the rates of change in holding numbers and average sizes were greatest in Buchan, Banff and Buchan and Garioch, and smallest in Marr (Table 3). The average holding size in Kincardine and Mearns increased by 3%. The static holding size in Marr may reflect the greater influence of estates in upland Aberdeenshire.

Table 3: Number of holdings and average size Aberdeenshire Administrative Areas 2003-07

Holdings	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Holdings 2003	1,049	1,045	1,432	1,151	1,423	844	6,944	258
Holdings 2007	1,084	1,096	1,459	1,185	1,440	858	7,122	255
% Change	3.34	4.88	1.89	2.95	1.19	1.66	2.56	-1.16
Avg. hold. size 2003	52.21	46.96	51.99	43.58	159.70	67.78	73.86	34.23
Avg. hold. size 2007	50.59	44.35	51.09	42.17	159.65	69.90	72.71	34.23
% Change	-3.11	-5.56	-1.72	-3.25	-0.03	3.14	-1.56	0.00

(ii) HOLDING SIZE DISTRIBUTION

When reviewing the size distribution of holdings in Aberdeenshire, and comparing it with that of Scotland as a whole, it is helpful to exclude rough grazing, which gives a misleading impression of scale of business in upland areas. Thus Table 4 shows the size distribution of holdings in terms of their crops and grass area.

Table 4: Crops and Grass Size Distribution in Aberdeenshire and Scotland 2001

Ha Crops	ABERDEENSHIRE				%	SCOTLAND				%	Ha Crops
and Grass	2003	%	2007	%	Change	2003	%	2007	%	Change	and Grass
<5	2,128	32.7	2,163	33.8	1.6	15,324	36.7	15,213	37.4	-0.7	<5
5-<10	645	9.9	659	10.3	2.2	4,613	11.1	4,632	11.4	0.4	5-<10
10-<20	582	8.9	574	9.0	-1.4	3,999	9.6	3,901	9.6	-2.5	10-<20
20-<30	449	6.9	424	6.6	-5.6	2,514	6.0	2,435	6.0	-3.1	20-<30
30-<40	346	5.3	331	5.2	-4.3	1,886	4.5	1,788	4.4	-5.2	30-<40
40-<50	306	4.7	278	4.3	-9.2	1,672	4.0	1,531	3.8	-8.4	40-<50
50-<75	620	9.5	574	9.0	-7.4	3,293	7.9	3,061	7.5	*-7.0*	50-<75
75-<100	448	6.9	409	6.4	-8.7	2,412	5.8	2,225	5.5	*-7.8*	75-<100
100-<150	471	7.2	492	7.7	4.5	2,862	6.9	2,750	6.8	*-3.9*	100-<150
150-<200	232	3.6	216	3.4	-6.9	1,423	3.4	1,325	3.3	*-6.9*	150-<200
200-<250	124	1.9	124	1.9	0.0	701	1.7	729	1.8	*4.0*	200-<250
250-<300	67	1.0	59	0.9	-11.9	388	0.9	383	0.9	*-1.3*	250-<300
300& over	92	1.4	100	1.6	8.7	613	1.5	683	1.7	*11.4*	300& over
Total	**6,510**	**100.0**	**6,403**	**100.0**	**-1.6**	**41,700**	**100.0**	**40,656**	**100.0**	**-2.5**	**Total**

A comparison of the size profile of Aberdeenshire and Scotland as a whole reveals that the former is characterised by a higher proportion of holdings in all size categories over 20 hectares. It is difficult to define what size of farm is required to earn a sufficient level of income for a farm family. 20 hectares is definitely too low if incomes are on average around £250 /ha since this would produce only £5000 per year, a much lower return than the minimum wage for the time required and equivalent to 10 weeks wages using the average earnings per week for the region. Using the above assumptions, even the average holding size would only earn £18,000 a year or roughly half average regional comparable earnings. Aberdeenshire is also distinguished from Scotland as a whole by having significantly positive trends in the number of holdings in the two smallest categories. This again highlights the increasing importance of hobby farming and splitting off pieces of land when steading and cottage sites are sold. It may also reflect the registration of land for subsidy purposes and the recording of land by hobby farmers for the first time as they are drawn into the regulatory regime by the need for livestock movement records, etc. The size categories higher up the distribution are rather broad, to avoid disclosure, and this probably masks an increase in the number of large holdings. A more important trend, however, but not reflected in the census, may be the increase in the number of holdings occupied by one business.

The predominantly commercial nature of Aberdeenshire farming is however illustrated by the Economic Size Unit (ESU) distribution presented in Table 5. (European size units are defined in terms of "standard gross margin" estimates based on recorded crop areas and livestock numbers, with a one-man full-time unit falling somewhere between 4 and 40 ESUs). By 2007 almost two-thirds of Aberdeenshire's holdings were in the smallest category, which had increased by almost 10% since 2003. At the other extreme the number of holdings of more than 40 ESU fell by about 4%, and at the end of the period accounted for less than 15% of all holdings. Scotland as a whole had a similar bi-modal distribution, but with a larger proportion of very small holdings growing more slowly, and a smaller proportion of large holdings, declining more rapidly.

Table 5: European Size Unit Distribution, Aberdeenshire and Scotland 2003, 2007

	ABERDEENSHIRE						SCOTLAND				
	2003		2007				2003		2007		
ESU	Holdings	%	Holdings	%	% Change	ESU	Holdings	%	Holdings	%	% Change
<4	3,959	57.0	4,345	61.0	9.7	**<4**	33,944	67.5	36,211	70.6	6.7
4-<8	421	6.1	379	5.3	-10.0	**4-<8**	2,494	5.0	2,273	4.4	-8.9
8-<16	543	7.8	474	6.7	-12.7	**8-<16**	2,850	5.7	2,538	4.9	-10.9
16-<40	968	13.9	910	12.8	-6.0	**16-<40**	4,701	9.3	4,383	8.5	-6.8
40+	1,053	15.2	1,014	14.2	-3.7	**40+**	6,333	12.6	5,914	11.5	-6.6
Total	**6,944**	**100.0**	**7,122**	**100.0**	2.6	**Total**	**50,322**	**100.0**	**51,319**	**100.0**	2.0

(iii) AREA OF AGRICULTURAL LAND

The total agricultural area of Aberdeenshire (almost 518,000 ha) increased slightly each year from 2003 to 2007. There is no obvious explanation for this, although the same trend has affected all the Scottish regions. This may be a recording inaccuracy, but the long-standing annual increase suggests a real effect, such as the registration of more parcels of land for IACS and SFP entitlement purposes, as described earlier. Anecdotally, it is hard to believe that more land is being reclaimed from hill, which would probably already be recorded anyway. At a sub-regional level, Kincardine and Mearns showed the largest increase (5% over the 5 years) whilst Buchan experienced a small decline in farmed area.

(iv) TENURE

Almost three-quarters of Aberdeenshire's farmland is now owner-occupied, compared with 71% across Scotland as a whole (Table 6). The proportion is lowest in Southern Scotland, where in

2007 it was still less than 70%. All parts of Scotland have seen an increase in owner-occupation since 2003. The rate of change in Aberdeenshire is however relatively slow, at under 3% over five years, compared to SE Scotland at almost 6%. The high owner-occupation rate in Aberdeenshire means that more farmers have benefited from the rise in asset values, related capital tax breaks and clear ownership of subsidy entitlements.

Table 6: Owner occupation rates in Aberdeenshire, Regions and Scotland

Percentage Owner-Occupied	2003	2004	2005	2006	2007	% Change Owner Occupied Area 2003-07
Aberdeenshire	73.64	74.24	75.05	74.94	75.01	2.83
NE	70.77	71.21	71.98	72.10	72.27	4.60
NW	74.33	74.28	74.77	74.03	73.78	1.00
SE	64.66	65.19	65.68	66.88	67.89	5.96
SW	67.81	67.99	68.72	69.32	69.61	3.51
Scotland	69.92	70.11	70.70	70.89	71.12	3.14

(v) ARABLE AREA

The proportion of crops and grass which is arable is a good indicator of the length of rotation, and hence intensity. The total arable area of Aberdeenshire in 2007 was a little over 156,000 ha, or 50% of the crops and grass area (Table 7). This compares with a figure of 33% for Scotland as a whole. The arable area of Aberdeenshire declined by almost 7% between 2003 and 2007, a slightly greater decline than across Scotland as a whole. By contrast, the NW region saw a 4% increase in its arable area over the same period. The relative stability of the arable area possibly reflects the constraints of land quality and climate on enterprise choice in the county. In other European arable regions one can expect up to 80% of arable area to be in crops.

Table 7: Arable area as a proportion of Crops and Grass area, Aberdeenshire, Regions and Scotland 2003-07

Arable as a % of Crops and Grass	2003	2004	2005	2006	2007	% Change Arable Area 2003-07
Aberdeenshire	52.78	52.53	50.77	50.08	50.16	-6.74
NE	51.01	50.81	49.05	48.10	48.28	-7.73
NW	16.91	18.59	18.12	17.58	19.39	4.37
SE	54.65	54.63	53.10	52.21	52.01	-6.16
SW	10.66	10.83	10.43	9.90	10.19	-5.90
Scotland	33.93	34.44	33.45	32.56	32.92	-5.77

Among the administrative areas of Aberdeenshire, the highest proportion of arable in crops and grass is in Formartine, at almost 62% (Table 8). Buchan, Banff and Buchan, and Kincardine and Mearns are all over 50%, whilst in Marr the proportion is less than 32%.

Table 8: Arable area as a proportion of Crops and Grass area, Aberdeenshire Admin. Areas 2003-07

Arable as a % of crops and grass	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
% arable 2003	57.70	54.00	63.35	53.29	33.45	59.55	52.78	39.30
% arable 2007	54.60	50.61	61.56	49.28	31.54	57.07	50.16	37.15
% change arable 2003-07	-7.14	-7.63	-4.67	-10.16	-7.83	-5.02	-6.74	-10.17

The greatest decline in arable area between 2003 and 2007 was in Garioch at over 10%, and the smallest in Formartine, at less that 5%. This may reflect where producers are most sensitive to profit changes – the best land is in Formartine and the most marginal arable is in the Garioch.

(vi) FALLOW AND SET-ASIDE

In 2007 approximately 13% of the arable area of Aberdeenshire (almost 20,000 ha) was either fallow or set-aside. This is a slightly smaller proportion than in the country as a whole, reflecting perhaps the greater sensitivity of land use in the region to changes in prices and set- aside subsidies.

The trend in set-aside (specifically) is a response both to changing cereal prices, and to changes in policy. The rapid increase in set-aside (noted in the previous report), which affected almost 16% of

Aberdeenshire's arable area in 2003, has been reversed, so that by 2007 the set-aside area had fallen by almost 35% (Table 9). In the NW of Scotland the proportion of arable area set-aside was always lower (about 14% in 2003), but the reduction has been greater, at over 40%. In the two regions of Southern Scotland set-aside was taken up less and the subsequent reduction has been less marked. The set aside trend reflects the marginal nature of some cereal production in Aberdeenshire.

Table 9: Set-Aside as a proportion of Arable area, Aberdeenshire, Regions and Scotland 2003-07

Setaside as a % of arable	2003	2004	2005	2006	2007	% Change Set-Aside Area 2003-07
Aberdeenshire	15.69	12.84	12.26	12.09	10.95	-34.88
NE	15.98	13.37	12.48	12.26	11.14	-35.66
NW	13.70	12.04	9.99	9.95	18.45	40.54
SE	13.64	11.13	11.11	11.10	10.36	-28.71
SW	10.88	9.71	9.65	9.96	9.20	-20.43
Scotland	14.10	11.76	11.30	11.25	11.21	-25.12

(vii) CASH CROPS

The cash crop area (all potentially marketed crops, excluding forage crops and set aside) of Aberdeenshire continued its established downward trend from 2003 to 2006. In these three years a further 5% of the region's cash crop area was lost. In 2007 roughly half this was returned to cash crop production, so that the net change 2003-07 was only about -2.6% (Table 10). Similar shifts were seen in the other Scottish regions, although the reduction tended to be greater, exceeding 10% (2003-06) in the SW. The Aberdeenshire area has actually been more stable than elsewhere.

Table 10: Cash Crop Area Aberdeenshire, Regions and Scotland 2003-07

Cash crop area 2003=100	2003	2004	2005	2006	2007	% Change Cash Crop Area 2003-07
Aberdeenshire	100.00	102.80	96.60	94.90	97.37	-2.63
NE	100.00	102.66	97.15	94.19	96.46	-3.54
NW	100.00	102.40	97.31	92.81	95.60	-4.40
SE	100.00	102.71	97.77	94.91	96.23	-3.77
SW	100.00	101.66	94.24	88.66	91.02	-8.98
Scotland	100.00	102.57	97.21	93.94	95.76	-4.24

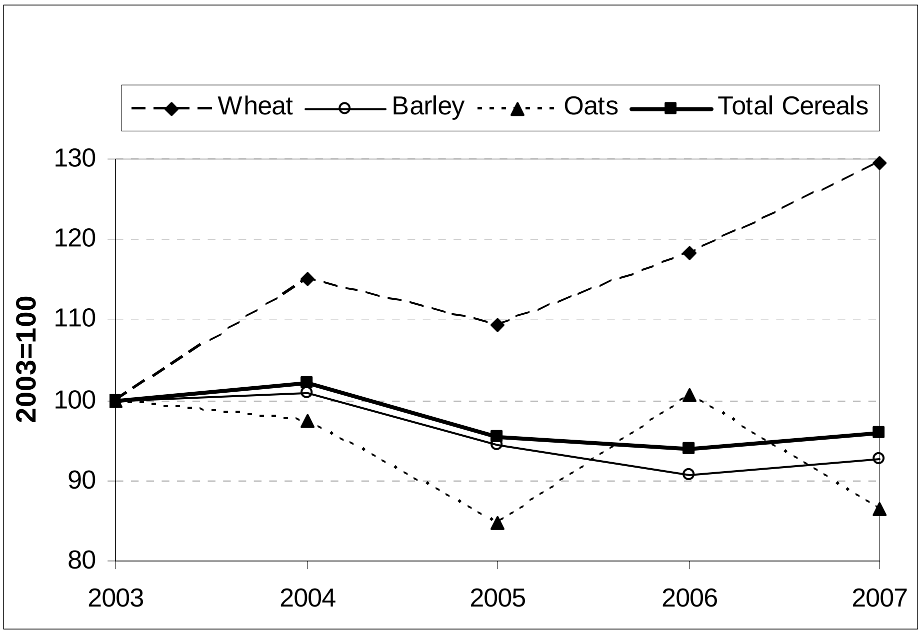
(viii) CEREALS

Cereal area showed a similar (indeed slightly more extreme) pattern of change during the period (Table 11 and Figure 1).

Table 11: Cereal Area Aberdeenshire, Regions and Scotland 2003-07

Cereal area 2003=100	2003	2004	2005	2006	2007	% Change Cereal Area 2003-07
Aberdeenshire	100.00	102.05	95.44	93.85	95.87	-4.13
NE	100.00	102.18	96.37	93.13	94.79	-5.21
NW	100.00	99.33	94.64	90.22	93.21	-6.79
SE	100.00	101.57	96.44	91.78	92.24	-7.76
SW	100.00	102.36	94.41	88.14	90.46	-9.54
Scotland	100.00	101.67	96.06	91.71	92.95	-7.05

Figure 1: Trend in Areas of Main Cereals in Aberdeenshire 2003 to 2007



The trend in cereals area described above has been accompanied by a steady shift from spring sown barley and oats to winter sown wheat and barley. Over the 5 year period the Aberdeenshire area saw an increase in winter cereals of 8.5% (Table 12), so that winter cereals now account for almost one-third of cereals grown. This reflects the greater profit potential of winter cereals, the benefit of spreading the harvest and machines, the attractive price of distilling wheat and the agronomic benefits of a rotation which includes oilseed rape (a break crop especially suited to the North East). However, a higher winter cereal area, especially wheat, increases risk (more working capital and more chance of a late wet harvest). Of the Scottish regions; SE Scotland, with its more favourable conditions, has the highest levels of winter cereals cultivation, almost half the total cereal area, and an increase of 12% over the past 5 years. At the other extreme, the NW has seen a decline of 2.6%, and the SW a decline of 15.7%.

Table 12: Winter Barley and Wheat as a Percentage of Total Cereals, Aberdeenshire, Regions and Scotland 2003-07

% of cereals winter sown	2003	2004	2005	2006	2007	% Change Winter Sown Area 2003-07
Aberdeenshire	28.30	29.57	30.23	31.88	32.02	8.49
NE	26.12	27.36	27.69	29.40	29.51	7.07
NW	16.30	18.98	16.38	17.83	17.03	-2.57
SE	41.13	45.16	45.41	49.49	49.94	12.01
SW	30.07	30.34	27.36	29.35	28.03	-15.69
Scotland	33.23	35.88	35.65	38.50	38.47	7.60

(ix) OILSEED RAPE

Oilseed rape accounts for almost 10% of crop area in Aberdeenshire. The area sown has stabilised during the past five years, after rapid contraction in the late 1990s and the first couple of years after 2000. Elsewhere in Scotland, the NW and SW regions have seen significant declines in rape cultivation, while the SE has seen a modest increase. Clubroot disease provides a major rotational constraint on oilseed rape area. Recently the price for rapeseed oil has increased sharply due to a world shortage of oils and the demand for biofuels, but the region's ability to expand output is limited by this rotational constraint.

Table 13: Oilseed Rape as a Percentage of Cash Crops, Aberdeenshire, Regions and Scotland 2003-07

OSR as % of cash crops area	2003	2004	2005	2006	2007	% Change OSR Area 2003-07
Aberdeenshire	9.52	10.07	10.12	9.74	9.74	-0.38
NE	8.50	8.98	8.95	8.80	8.91	1.08
NW	4.98	6.11	6.16	5.03	4.89	-6.25
SE	7.10	7.70	7.07	6.95	7.68	4.09
SW	2.18	2.54	2.32	2.22	1.82	-23.77
Scotland	6.92	7.50	7.15	6.97	7.34	1.57

(x) POTATOES

Potatoes account for approximately 3.6% of the cash crop area in Aberdeenshire (Table 14). The area planted declined by about 10% between 2003 and 2006 due to poor prices and some mediocre harvests, but recovered about half the lost area in 2007 in response to price improvements. Of the Scottish regions the SE has shown the most positive trend in potato cultivation, increasing its area by almost 7% over the past 5 years. In 2007 potatoes accounted for about 8% of cash crop area in the SE region. The NW has also shown a modest increase in potato cultivation, whilst the SW, like the NE, has experienced a decline.

Table 14: Potato Cultivation: Aberdeenshire, Regions and Scotland 2003-07

Potato area 2003=100	2003	2004	2005	2006	2007	Potatoes as % of Cash Crops 2007
Aberdeenshire	100.00	97.32	92.31	89.79	95.29	3.57
NE	100.00	97.85	92.67	88.81	93.74	3.60
NW	100.00	101.15	95.28	91.27	101.23	3.49
SE	100.00	105.40	101.70	102.69	106.65	8.20
SW	100.00	98.13	95.15	93.55	89.17	2.25
Scotland	100.00	103.34	99.26	98.91	103.01	5.88

Seed potato cultivation shows an interesting pattern of regional change over the past 5 years. The NE has exhibited a large degree of stability (Table 15), whilst the NW has seen a 10% increase. Further south the picture has been rather negative with a reduction in area planted in the SW of well over a quarter, and 12% in the SE.

Table15: Seed Potato Cultivation: Aberdeenshire, Regions and Scotland 2003-07

Seed potatoes as a % of total	2003	2004	2005	2006	2007	% Change Seed Pot. Area 2003-07
Aberdeenshire	70.73	70.33	67.89	74.44	74.48	0.35
NE	69.63	68.57	68.98	73.03	74.87	0.79
NW	45.07	44.20	49.75	48.39	49.01	10.09
SE	37.20	34.46	33.23	33.29	30.57	-12.37
SW	9.16	10.15	8.18	12.71	7.33	-28.62
Scotland	43.37	40.87	40.15	40.64	39.05	-7.25

Aberdeenshire, and the NE as a region, still has the greatest degree of specialisation in seed potato production, accounting for more than 30% of the Scottish total. Seed potatoes account for three quarters of the area planted with potatoes in Aberdeenshire, and in the wider NE. In the NW the proportion is almost one-half. In the SE less than a third of potatoes are grown for seed, and in the SW less than 10%.

Early potato production (always a minority land use in Aberdeenshire) has declined by 14% over the past 5 years. It now accounts for only 5% of the total potato area. The NW region has seen a similar trend, although "earlies" still account for almost 18% of all potatoes grown (Table 16). The principal region for early potato growing is of course the SW, and here they account for over one-third of the area planted, and have seen an increase of almost 8% over the past 5 years. The SE region has seen the biggest increase (20%), but earlies still only account for less than 2% of potatoes grown there.

Table 16: Early Potato Cultivation: Aberdeenshire, Regions and Scotland 2003-07

Early potatoes 2003=100	2003	2004	2005	2006	2007	Early Pot. % of total 2007
Aberdeenshire	100.00	103.84	102.67	81.47	85.97	5.09
NE	100.00	108.59	97.10	80.38	82.21	5.70
NW	100.00	102.95	84.02	85.15	84.78	17.58
SE	100.00	111.08	109.80	110.54	120.44	1.84
SW	100.00	102.29	101.49	113.89	107.61	35.08
Scotland	100.00	110.14	107.02	106.33	114.31	4.45

Potatoes are a small crop by area in Aberdeenshire, but a big crop by value (see Output section later). They are produced by a small number of mainly large businesses who have made the commitment in capital investment and technology to this high risk, export oriented crop. The impact on farming is fairly wide as these growers rent "clean" land (free from potato cyst nematode) on many other farms to ensure a minimum six year break between crops.

(xi) INTENSIVE CROPS

Intensive crops are here defined as field vegetables, soft fruit, and glasshouse crops. Although they account for less than 1% of the arable area, they are of increasing importance in Aberdeenshire. As a group they increased by almost 50% over the 5 years since 2003 (Figure 2) and are possibly a "green shoot" of future growth in the region in response to new market opportunities and the new realities of climate change. Aberdeenshire's trend in intensive crops was the most positive of all the Scottish regions (Table 17).

Of the three categories of intensive crops, by far the biggest increase in Aberdeenshire was in soft fruit (84% - 102 ha in 2007). Field vegetables accounted for over 1,300 ha in 2007, an increase of 44% since 2003. Glasshouse crops still account for just a few hectares in Aberdeenshire, but have shown some tendency to increase.

Figure 2: Trend in Areas of Selected Non-Cereal Cash Crops in Aberdeenshire 2003 to 2007

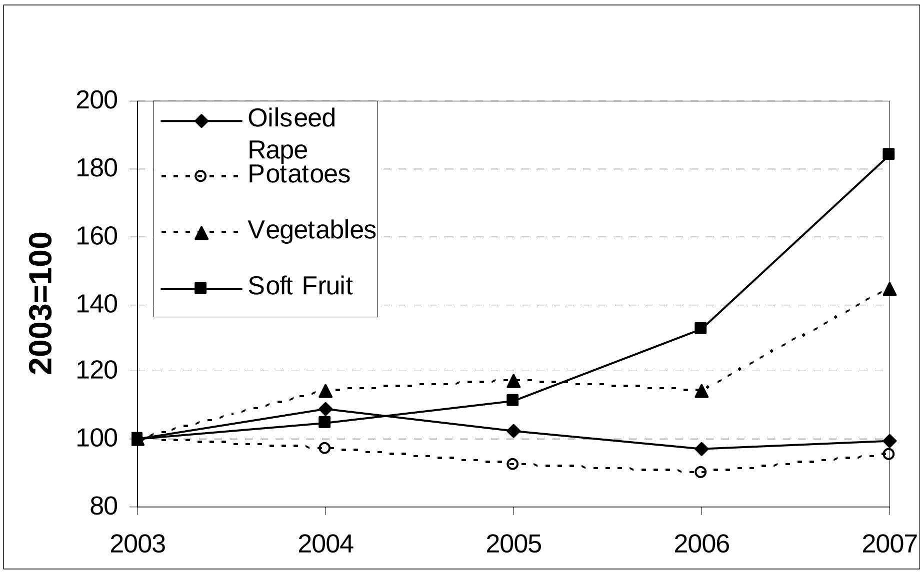


Table 17: Intensive crops: Aberdeenshire, Regions and Scotland 2003-07

Intensive crops 2003=100	2003	2004	2005	2006	2007	Intensive crops % of arable 2007
Aberdeenshire	100.00	113.80	117.16	116.38	146.64	0.89
NE	100.00	107.49	113.29	116.43	145.39	1.03
NW	100.00	116.29	104.37	106.95	110.60	0.71
SE	100.00	100.00	98.63	106.12	107.78	3.65
SW	100.00	96.43	91.66	76.83	77.21	0.39
Scotland	100.00	101.17	100.19	106.53	111.13	2.27

(xii) FODDER CROPS

The decline in fodder crop cultivation (e.g. swedes, kale, forage rape), noted in previous reports, was temporarily reversed after 2003, with small increases each year until 2007, when the area fell below that of 2003. Fodder crops are a relatively minor land use in Aberdeenshire, accounting for less than 3% of the arable area. Only in SE Scotland is the proportion smaller. In the SW fodder crops account for 13% of arable land, and saw an increase of 27% between 2003 and 2007, perhaps reflecting the northward movement of forage maize for dairy farms. The NW region shows a slightly different trend to the rest the SE and NE, in that the fodder crop area declines steadily, from 2005 onwards.

(xiii) IMPROVED GRASS AND ROUGH GRAZING

The improved grass area of Scotland was fairly stable between 2003 and 2007 (Table 18). In the NE and Aberdeenshire (together with SE) the area increased slightly, whilst in the SW it decreased slightly, and in the NW it decreased by almost 12%.

Table 18: Improved Grass: Aberdeenshire, Regions and Scotland 2003-07

Improved Grass	2007 (2003=100)	% of Crops & Grass	% <5 years	% for Mowing
Aberdeenshire	103.55	49.84	30.23	43.55
NE	102.92	51.72	30.03	43.13
NW	88.27	80.61	22.76	21.08
SE	104.35	47.99	22.53	29.20
SW	99.02	89.81	27.03	18.97
Scotland	98.59	67.08	25.70	25.59

The regional pattern of the percentage of grass in crops and grass is the inverse of that of arable, noted above.

Aberdeenshire temporary grass tends to be ploughed more frequently (30% is less than 5 years old) than elsewhere in Scotland. Also a much larger proportion (44%) of the improved grass is mowed rather than grazed, reflecting the importance of winter or all-the-year-round finishing cattle systems. Both these characteristics (which were stable throughout the 5 year period) are indicative of the relative productiveness and intensity of use of improved grass in Aberdeenshire.

Between 2003 and 2007 the rough grazing area of Aberdeenshire increased by approximately 1%. This was a smaller increase than across Scotland as a whole (about 3%).

(xiv) FARM WOODLAND

In 2003 less than 4% of Aberdeenshire's agricultural area was recorded as planted with trees, significantly below the Scottish average of 4.3% (Table 19). During the next 4 years the farm forestry area expanded by almost 44%, and as a result the percentage of total area rose above the Scottish average (5%) to 5.5%. This reflects the low margins from alternatives over this period and the success of forestry grant schemes and especially the Challenge Fund for planting east of the A96.

Table 19: Farm Woodland: Aberdeenshire, Regions and Scotland 2003-07

Farm Woodland 2003=100	2003	2004	2005	2006	2007	Woodland % of Total Area
Aberdeenshire	100.00	101.54	108.02	113.44	143.76	5.49
NE	100.00	97.40	104.21	107.53	133.73	5.32
NW	100.00	101.14	92.17	103.47	118.47	5.40
SE	100.00	101.07	108.53	105.16	107.53	4.35
SW	100.00	102.17	105.59	107.45	119.98	4.84
Scotland	100.00	100.98	100.59	105.35	118.26	5.00

(xv) TOTAL CATTLE

Total cattle numbers have held up in Aberdeenshire better than in other parts of Scotland since 2003, and the number of cattle per forage hectare is still more than twice the Scottish average (Table 20).

Table 20: Total Cattle: Aberdeenshire, Regions and Scotland 2003-07

Total Cattle 2003=100	2003	2004	2005	2006	2007	Cattle per Forage Hectare
Aberdeenshire	100.00	100.84	102.76	101.46	99.51	0.90
NE	100.00	100.99	103.25	100.82	98.87	0.84
NW	100.00	100.74	100.36	97.18	94.75	0.12
SE	100.00	100.59	101.66	98.90	96.69	0.43
SW	100.00	100.87	101.31	99.35	97.92	0.65
Scotland	100.00	100.82	101.63	99.26	97.45	0.41

Cattle numbers have increased slightly in Buchan and Formartine, and at the other extreme have fallen by 7.5% in the Banff and Buchan area (Table 21).

Table 21: Total Cattle: Aberdeenshire Admin. Areas 2003-07

Total Cattle	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	33,595	46,754	61,286	40,007	75,378	40,085	297,105	5,811
2007 (2003=100)	92.55	104.58	104.18	98.77	97.16	98.63	99.51	85.82

(xvi) THE BEEF BREEDING HERD

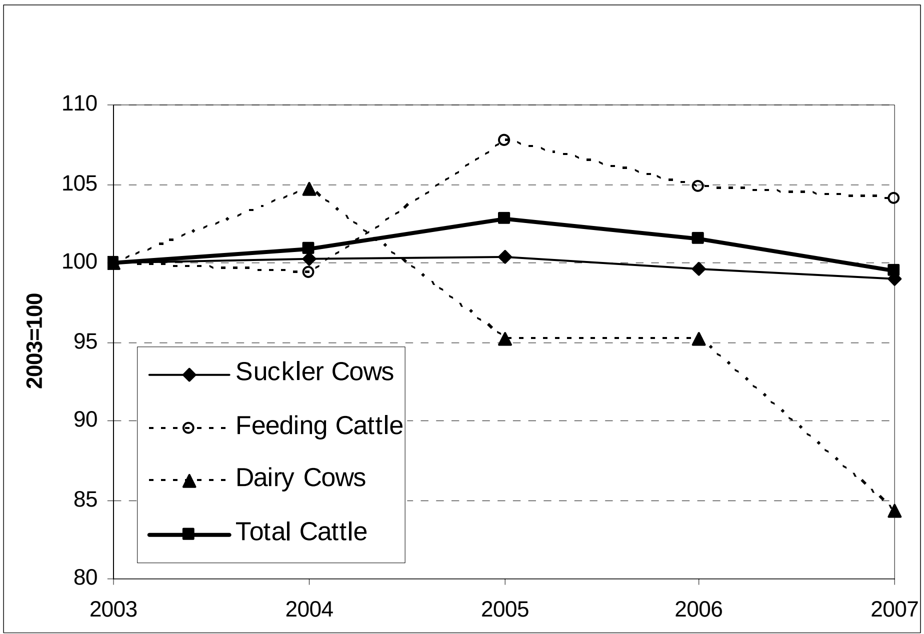
The beef breeding herd (including heifers and followers) in Aberdeenshire has changed very little since 2003 (Table 22 and Figure 3). The beef breeding herd accounts for a little less than one-third of all cattle in Aberdeenshire, a very similar proportion to that of Scotland as a whole. In the NW region the proportion rises to 44%, whilst in the SW the importance of dairying means that it is squeezed to 26%. The stability of the beef breeding herd in Aberdeenshire is remarkable given the stresses of BSE and FMD restrictions, poor prices and the opportunity which decoupling of subsidies has provided to reduce numbers while not harming profits. However, producers do lack alternatives in many areas of Aberdeenshire, and given the buffer of the SFP they have had time to work at improving unsubsidised margins.

According to QMS, even bottom-third suckler herds make positive Gross Margins, but once all fixed costs are allocated negative margins are recorded. However, as long as herds make a positive contribution to covering overheads, and the rest is covered by the SFP, most committed producers are likely to stay in the business. It should be remembered that we only have two years of census data post-decoupling and, given the long-term nature of cattle production, a major change in this short period was unlikely.

Table 22: Beef Breeding Herd: Aberdeenshire, Regions and Scotland 2003-07

Beef Cows (2003=100)	2003	2004	2005	2006	2007	Beef Breeding Herd % of Total Cattle 2007
Aberdeenshire	100.00	100.20	100.35	99.59	98.93	31.20
NE	100.00	100.62	101.51	99.42	98.50	32.75
NW	100.00	101.22	100.39	97.71	94.84	44.04
SE	100.00	100.57	101.27	99.75	96.00	37.77
SW	100.00	102.14	102.58	100.25	96.45	26.12
Scotland	100.00	101.30	101.66	99.51	96.45	31.96

Figure 3: Trend in Total Cattle, Sucklers, Feeding Cattle and Dairy Cows in Aberdeenshire 2003 to 2007



Of Aberdeenshire's administrative areas, Formartine and Kincardine and Mearns have seen the most positive trends in suckler cow numbers, whilst numbers have fallen by 10% in Banff and Buchan, and almost 8% in Buchan.

Table 23: Suckler Cows: Aberdeenshire Admin. Areas 2003-07

Suckler Cows	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	7,719	7,264	9,783	10,546	25,971	9,791	71,074	974
2007 (2003=100)	90.19	92.57	106.19	97.66	98.72	107.36	98.93	89.19

(xvii) FEEDING CATTLE

Feeding cattle represent almost 38% of all cattle in Aberdeenshire – a higher proportion than anywhere else in Scotland. This dominance has been strengthened since 2003, as feeding cattle numbers in the area have increased by 4% (see Figure 3 above and Table 24 below). In 1998 there were 103,070 feeding cattle recorded in Aberdeenshire while in 2007 there were 112,124. In all other parts of Scotland the trend has been slightly negative.

There is a structural difference between the breeding and feeding sectors, with finishing concentrating into larger units while the average size of suckler herds is quite small.

Table 24: Feeding Cattle: Aberdeenshire, Regions and Scotland 2003-07

Feeding Cattle (2003=100)	2003	2004	2005	2006	2007	Feeding Cattle % of Total Cattle 2007
Aberdeenshire	100.00	99.40	107.67	104.84	104.08	37.74
NE	100.00	99.57	107.88	104.81	103.49	34.80
NW	100.00	94.78	97.99	95.22	91.87	19.02
SE	100.00	97.34	101.29	97.14	95.03	23.37
SW	100.00	101.52	103.11	100.46	98.55	18.63
Scotland	100.00	99.33	103.52	100.42	98.48	22.79

(xviii) THE DAIRY HERD

Dairy cattle accounted for less than 5% of cattle in Aberdeenshire in 2007. This compares with a Scottish average of 15%, and a figure of 26% in the SW. Dairy cow numbers have fallen in all Scottish regions except the SW, and by over 15% in 5 years in Aberdeenshire. Thus a period of retrenchment in the industry has served to increase the degree of regional specialisation. To take a longer perspective, in 1998 there were 21,254 dairy breeding stock in Aberdeenshire while in 2007 there were only 14,101. This is a function of steadily increasing yields as well as poor prices and a shift out of dairying due to poor profits. While the Scottish average herd size is creeping up, some of the largest Aberdeenshire herds have ceased production. Total cattle numbers in Aberdeenshire have declined, but this is almost entirely due to decline in dairying while the beef sector has remained stable (see Figure 3 earlier).

Table 25: Dairy Cattle: Aberdeenshire, Regions and Scotland 2003-07

Dairy Cows (2003=100)	2003	2004	2005	2006	2007	Dairy herd as % of Total Cattle 2007
Aberdeenshire	100.00	104.72	95.15	95.16	84.36	4.75
NE	100.00	102.28	96.89	93.53	84.74	5.01
NW	100.00	102.39	101.47	94.34	88.74	3.64
SE	100.00	101.43	103.45	96.44	91.77	6.82
SW	100.00	98.17	99.67	100.85	102.14	25.58
Scotland	100.00	98.94	99.86	99.65	99.35	15.10

The Aberdeenshire sub-regions show strongly divergent trends: dairy cow numbers have fallen substantially in Garioch, Marr and Kincardine and Mearns, but have increased slightly in Banff and Buchan, Buchan, and Formartine (Table 26).

Table 26: Dairy Cows: Aberdeenshire Admin. Areas 2003-07

Dairy Cows	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	1,674	1,282	3,720	935	399	2,129	10,139	530
2007 (2003=100)	101.39	103.64	103.28	57.43	67.28	64.36	84.36	68.92

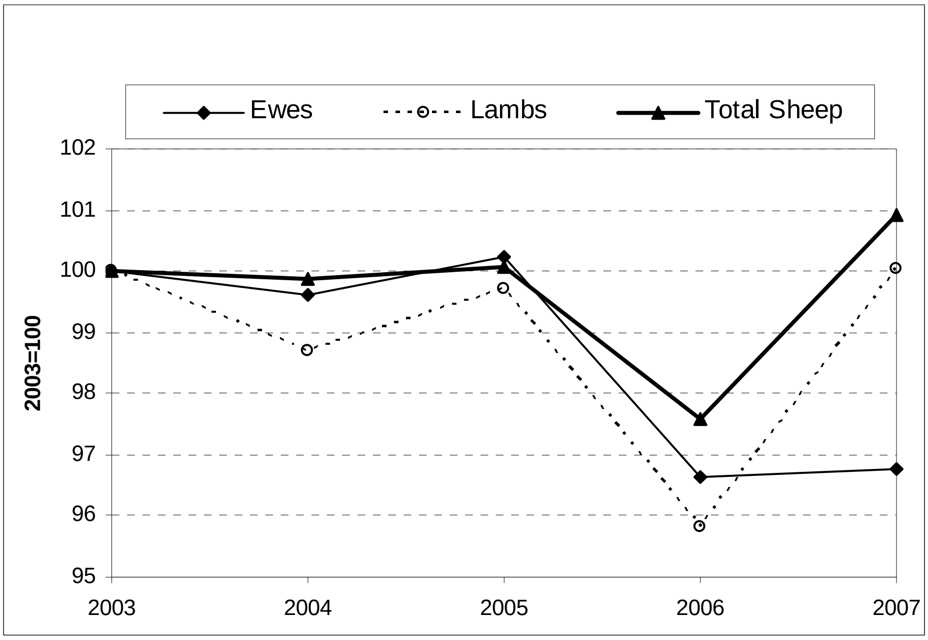
(xix) SHEEP

Aberdeenshire farms recorded almost 500,000 sheep in June 2007. The number of breeding ewes declined by approximately 3% between 2003 and 2007, a smaller decrease than both the NW and SW regions, but roughly equivalent to the change in the SE. Aberdeenshire continues to enjoy a relatively high lambing rate, almost 1.5 lambs per ewe. This is significantly above the Scottish average. The rise in total sheep numbers, shown in Figure 4 for 2007, reflects the good lambing conditions that spring and the subsequently high number of lambs recorded on farms at June 2007.

Table 27: Breeding Ewes: Aberdeenshire, Regions and Scotland 2003-07

Breeding Ewes (2003=100)	2003	2004	2005	2006	2007	Lambing Rate 2007
Aberdeenshire	100.00	99.62	100.23	96.63	96.78	1.47
NE	100.00	100.29	102.05	97.63	98.24	1.45
NW	100.00	97.68	95.56	87.05	82.41	1.04
SE	100.00	101.60	102.01	99.58	96.99	1.37
SW	100.00	100.53	100.02	95.08	91.16	1.27
Scotland	100.00	100.06	99.56	94.42	91.02	1.26

Figure 4: Trend in Sheep Numbers in Aberdeenshire 2003 to 2007



Of the administrative areas, Banff and Buchan and Garioch saw a small increase in the number of ewes, whilst Formartine saw a 20% reduction in breeding ewes between 2003 and 2007.

Table 28: Breeding Ewes: Aberdeenshire Admin. Areas 2003-07

Breeding Ewes	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	21,812	20,666	26,048	21,510	69,988	17,769	177,793	2,503
2007 (2003=100)	106.21	99.20	82.92	106.86	96.57	96.96	96.78	98.54

Hogget finishing is a major enterprise in Aberdeenshire and usually takes place on farms which do not have breeding ewes and which are also cattle finishers.

(xx) PIGS AND POULTRY

Almost 60% of Scotland's pigs (about 5% of UK pigs) are reared in Aberdeenshire (nearer 70% in the NE as a whole). Over the past five years, numbers have been fairly stable, in contrast to the other major pig-producing region, SE Scotland, where numbers have fallen by more than a quarter.

Table 29: Pigs: Aberdeenshire, Regions and Scotland 2003-07

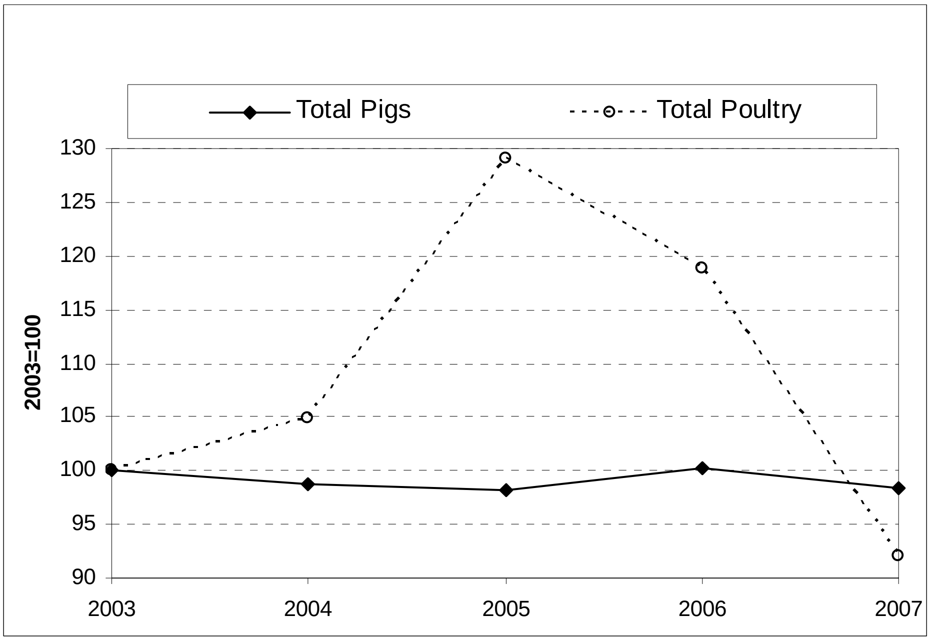
Total Pigs (2003=100)	2003	2004	2005	2006	2007	% of Scottish Total 2007
Aberdeenshire	100.00	98.69	98.23	100.32	98.45	57.05
NE	100.00	97.54	99.92	101.10	100.03	67.23
NW	100.00	88.30	97.67	102.85	107.34	5.92
SE	100.00	93.59	85.24	76.15	73.26	21.23
SW	100.00	105.76	106.94	107.54	103.28	5.62
Scotland	100.00	96.41	96.19	94.77	93.33	100.00

Of the administrative areas, Banff and Buchan and Buchan saw 24% and 42% increases respectively in pig numbers over the 5 years to 2007. Garioch also saw a small increase, whilst Kincardine and Mearns saw a sharp fall (almost 25%). Marr saw a 15% decline.

Table 30: Pigs: Aberdeenshire Admin. Areas 2003-07

Total Pigs	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	37,803	24,840	104,441	46,457	12,514	34,487	260,542	*
2007 (2003=100)	123.84	141.93	94.11	102.28	84.49	75.97	98.45	*

Figure 5: Trend in Total Pig and Poultry Numbers in Aberdeenshire 2003 to 2007



The SE of Scotland is the main poultry-producing area in the country, with almost two-thirds of all birds. Numbers have been relatively stable there, but have fluctuated in Aberdeenshire, reaching almost 30% above the 2003 level in 2005, and then falling back, to almost 10% below the 2003 level in 2007 (Table 31). In this year Aberdeenshire accounted for slightly less than 15% of Scotland's poultry.

Aberdeenshire is a large feed grain producing area, has ample space for dung, has some health advantages and a relatively good stock of available buildings, but it is difficult to pinpoint any competitive advantage in pigs and poultry which has made these enterprises so important for the region. The history and continuity of Lawsons of Dyce and then Grampian Pig Producers must be important in the pig story, and the role of the Grampian Country Food Group in poultry.

These skills are now transferring into the expansion of free range egg and organic broiler production.

Table 31: Total Poultry: Aberdeenshire, Regions and Scotland 2003-07

Total Poultry (2003=100)	2003	2004	2005	2006	2007	% of Scottish Total 2007
Aberdeenshire	100.00	104.87	129.11	118.76	92.08	14.50
NE	100.00	104.24	122.49	116.01	90.27	15.90
NW	100.00	596.36	485.34	96.80	98.06	1.84
SE	100.00	99.68	91.96	93.57	98.16	63.41
SW	100.00	99.85	75.92	72.90	101.31	18.85
Scotland	100.00	109.56	101.47	93.73	97.38	100.00

During the 2003-07 period the number of poultry in Banff and Buchan and Banff administrative areas more than doubled (Table 32), whilst in Formartine they increased by almost 30%. At the other extreme the number of birds in Garioch declined to 25% of its 2003 level.

Table 32: Total Poultry: Aberdeenshire Admin. Areas 2003-07

Total Poultry	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
Head 2007	841,206	196,072	380,950	270,946	31,972	327,886	2,049,032	4,118
2007 (2003=100)	221	201	129	25	95	95	92	5

(xxi) LABOUR

In 2007 9,229 people were recorded by the June Census as being employed or engaged in agriculture. The long-established downward trend has continued, with Aberdeenshire's workforce declining by 3.4% between 2003 and 2007 (Table 33). The NW and SW regions of Scotland saw losses of a similar order of magnitude. The SE maintained and even increased its numbers, due to an influx of casual and seasonal workers. The rise in casual and seasonal workers illustrates the rather misleading impression which can be given by total workforce numbers. It is important also to take account of changes in the share of full-time and part-time workers. In 2007 almost 60% of Aberdeenshire's workforce was part-time (including seasonal and casual). This was a higher proportion than in the two regions of Southern Scotland, but lower than the NW, where crofting pushes the proportion up to almost 80%.

Table 33: Total Labour: Aberdeenshire, Regions and Scotland 2003-07

Total Labour (2003=100)	2003	2004	2005	2006	2007	% Part Time 2007
Aberdeenshire	100.00	99.20	97.19	95.66	96.58	59.38
NE	100.00	98.99	97.77	97.75	96.23	58.69
NW	100.00	99.66	99.39	98.14	94.15	79.67
SE	100.00	100.82	99.79	99.55	107.95	56.09
SW	100.00	99.16	98.85	97.22	95.76	53.25
Scotland	100.00	99.67	99.04	98.14	98.35	62.10

The age and physical capability of the labour force is not reflected in this table.

Taking occupiers separately (Table 34), the reduction in numbers in Aberdeenshire has been of a similar order to total labour, and the pattern across Scotland is rather similar. In 2007 almost 55% of Aberdeenshire occupiers were part-time. These are mostly smaller farms, but also larger ones where the occupier has other business interests. Again the proportion in the NW was about 80%.

The largest reduction in the number of occupiers (other than in the Aberdeen City area) was in Kincardine and Mearns (Table 34), at 7% over 5 years. At the other extreme, numbers in Buchan seem to have increased slightly. This area also had the highest proportion of part-time occupiers in 2007, at 65%. The proportion in Garioch was similarly high (64%). In Marr and Kincardine and Mearns the proportion fell below 54%. These percentages may reflect the opportunities for part-time working close to Aberdeen and the major towns while the Mearns is the main large-scale commercial farming area.

Table 34: Occupiers: Aberdeenshire Admin. Areas 2003-07

Total Occupiers	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
2007	659	629	802	624	844	445	4,003	111
2007 (2003=100)	99	101	97	99	95	93	97	92
% Part Time 2007	56.8	65.0	56.0	64.1	53.8	53.5	58.1	61.3

The number of staff in Aberdeenshire fell between 2003 and 2007 slightly faster than that of occupiers, i.e. by 5.6% (Table 35). Both the NW and the SW showed larger reductions in staff, but the SE showed an increase (because casual and seasonal workers are included). Aberdeenshire and the NE seem to have retained a higher proportion of their hired staff than most other parts of Scotland (the exception is the SE); almost three quarters of Aberdeenshire farm staff are hired. Aberdeenshire also has a part-time staff percentage below the Scottish average, at 46% (in the

NW the proportion rises to almost 62%). However, as in other parts of Scotland, part-time and family staff are increasingly relied upon in Aberdeenshire.

Table 35: Staff: Aberdeenshire, Regions and Scotland 2003-07

Staff (2003=100)	2004	2005	2006	2007	% Hired 2007	% Part Time 2007
Aberdeenshire	97.22	91.79	88.90	94.39	74.11	46.27
NE	96.80	94.38	95.90	93.86	62.69	42.72
NW	96.01	97.94	93.97	86.41	50.04	61.84
SE	101.68	100.14	100.29	117.25	82.05	51.69
SW	97.33	96.60	94.59	93.04	58.69	42.46
Scotland	98.56	97.69	96.71	100.64	67.70	48.84

The largest reduction in staff numbers over the five years to 2007 was in Formartine district, at 11% (Table 36). At the other extreme Buchan showed a 3% increase. Most of these staff would have been part time, however, as the area had over one third of its staff in this category. Marr too had over 30%. At the other extreme Banff and Buchan, Garioch and Kincardine and Mearns still had more than 70% full-time.

Table 36: Staff: Aberdeenshire Admin. Areas 2003-07

Total Staff	Banff and Buchan	Buchan	Formartine	Garioch	Marr	Kincardine & Mearns	Aberdeen-shire	Aberdeen City
2007	466	373	666	473	510	589	3,077	130
2007 (2003=100)	95	103	89	93	95	96	94	94
% Part Time 2007	26.2	34.0	28.8	26.4	31.8	27.0	28.8	37.7

Dalton, G.E. 1994 (with A S Davies). "A Probabilistic Model of Off-farm Work in Scotland". Paper for Cahiers d'Economie et Sociologie Rurales, No. 32, p 22-37.

2. ABERDEENSHIRE AGRICULTURAL OUTPUT ESTIMATES

(i) METHODOLOGY

The main sources of data for the output estimates are the June Census (for crop areas and livestock numbers), and (for yields and prices) two Scottish Government publications; the Economic Report on Scottish Agriculture, and Scottish Agriculture – Output, Input and Income Statistics.

As in previous reports for Aberdeenshire Council and Scottish Enterprise (the most recent in June 2002), the crop and milk output volume estimates have been calculated by applying regional yields to the area planted and the number of dairy cows. The output volume estimates for cereals and potatoes are net of the quantity of local production which is assumed to have been consumed on-farm within the Aberdeenshire area, either for seed or for feed. This estimate of local consumption is based upon the number of animals in certain livestock categories, each weighted by a "feed coefficient" representing their feed requirement. Thus cereal output volume estimates are affected not only by area sown and yield, but by changes in cattle numbers.

Output values are estimated on the basis of output coefficients (£ per hectare or per head) which are derived from the yield data mentioned above, combined with average Scottish prices. Again output value estimates are net of "intermediate consumption". Thus cereals and potatoes fed or used for seed within Aberdeenshire, and the value of store stock finished locally, are excluded.

The output value estimates presented below do not include the value of direct subsidies. The period covered by this report has seen very substantial changes in both the value and the "mode of delivery" of CAP subsidies. Most subsidy is now decoupled from individual enterprises, so the convention used here is to exclude all subsidy from output estimates. Subsidy estimates are discussed at the end of this section.

(ii) VOLUME OF OUTPUT

The volume of wheat and barley output declined sharply between 2003 and 2004, recovered slightly in the two subsequent years, and then rose strongly (as a result of increased area sown) in 2007 (Table 37). Oat output followed a similar trend, but without an increase in 2007. Rape output increased slightly between 2003 and 2004, then fell sharply in 2005, recovering to some extent in

2006-07. Potato output was rather low in 2004, but in 2006 and 2007 substantially exceeded the tonnage of the first three years under study. All of these patterns of change were broadly similar to those exhibited by Scotland as a whole (Table 38).

Table 37: Crop Output Volume, Aberdeenshire 2003-07

	Wheat	Barley	Oats	Oilseed Rape	Potatoes
			000 tonnes		
2003	*86.0*	*408.4*	*21.6*	*69.5*	*175.8*
2004	*68.0*	*343.8*	*9.9*	*71.3*	*149.5*
2005	*75.0*	*331.8*	*16.6*	*44.8*	*176.0*
2006	*74.9*	*321.4*	*18.7*	*53.2*	*204.9*
2007	*77.4*	*325.2*	*15.2*	*56.6*	*203.7*
2003-07	**76.2**	**346.1**	**16.4**	**59.1**	**182.0**

Table 38: Crop Output Volume, Scotland 2003-07

	Wheat	Barley	Oats	Oilseed Rape	Potatoes
			000 tonnes		
2003	*679.6*	*1,069.6*	*134.6*	*189.7*	*1,246*
2004	*757.5*	*989.2*	*101.4*	*200.4*	*1,096*
2005	*716.6*	*872.4*	*106.8*	*121.2*	*1,176*
2006	*708.3*	*808.5*	*122.0*	*143.4*	*1,398*
2007	*715.5*	*860.2*	*110.0*	*160.1*	*1,354*
2003-07	**715.5**	**920.0**	**115.0**	**162.9**	**1,254**

Amongst livestock products, milk output volume in Aberdeenshire fell every year between 2003 and 2007, so that by the end of the five years it was 18% below the level of 2003 (Table 39). Fat cattle output volume was very stable for the first three years, but fell off in 2006-07. Lamb output showed a similar pattern of change, except that it recovered to 2003 levels in 2007. Finished pig production was rather consistent throughout the period, except for an increase in 2006.

Table 39: Livestock Output Volume, Aberdeenshire 2003-07

	Milk	Fat Cattle	Lambs	Fat Pigs	Eggs	Broilers
	M. Litres	'000 Head	'000 Head	'000 Head	Million	'000 Head
2003	*79.5*	*75.2*	*195.7*	*166.8*	*26.3*	*10,042*
2004	*85.0*	*75.3*	*193.2*	*166.7*	*27.5*	*10,465*
2005	*78.2*	*75.8*	*195.1*	*165.2*	*77.5*	*11,931*
2006	*77.3*	*72.5*	*187.5*	*170.7*	*77.6*	*11,045*
2007	*65.2*	*70.9*	*195.8*	*166.8*	*75.2*	*8,050*
2003-07	**77.0**	**73.9**	**193.5**	**167.2**	**56.8**	**10,307**

Egg production in Aberdeenshire underwent a step change between 2004 and 2005, when the number of laying hens increased from less than 100,000 to almost 300,000. On the other hand, broiler production fell by about 20% between 2006 and 2007.

Table 40: Livestock Output Volume, Scotland 2003-07

	Milk	Fat Cattle	Lambs	Fat Pigs	Eggs	Broilers
	M. Litres	'000 Head	'000 Head	'000 Head	Million	'000 Head
2003	*1,318.5*	*375.0*	*2,896.6*	*289.2*	*807.0*	*47,530*
2004	*1,331.6*	*378.2*	*2,888.1*	*282.0*	*812.9*	*53,603*
2005	*1,361.4*	*384.1*	*2,895.8*	*289.7*	*750.7*	*46,103*
2006	*1,342.0*	*356.2*	*2,769.7*	*290.1*	*755.0*	*48,232*
2007	*1,272.7*	*351.1*	*2,758.0*	*285.2*	*805.9*	*41,575*
2003-07	**1,325.3**	**368.9**	**2,841.6**	**287.2**	**786.3**	**47,408**

Livestock output volume trends in Scotland as a whole were broadly similar, though, as one might expect, the amplitude of change was rather lower.

(iii) VALUE OF OUTPUT

Table 41 shows the estimated value of output from Aberdeenshire and Scotland as a whole, and by crop and livestock enterprise, between 2003 and 2007. Figure 6 shows the trend on a line graph. In current prices the value of Aberdeenshire's output increased in each of these years, from a little under £178m in 2003 to £224m in 2007. This represents an increase of about 25%. Most of the increase was in 2007 and is due to crop increases – the proportion of total Aberdeenshire output value from crop increased from 42% in 2003 to 50% in 2007. In Scotland as a whole the increase over the five years was of a similar magnitude, although there was a slight drop between 2004 and 2005.

Table 41: Value of Output, Main Crop and Livestock enterprises, Aberdeenshire and Scotland, 2003-07

Aberdeenshire — **£m Current Prices (excl. subsidies)**

	Cereals	OSR	Potatoes	Dairy	Beef	Sheep	Pigs	Poultry	Crops	Livestock	Total
2003	38.82	10.88	17.76	16.93	41.05	7.59	22.40	15.86	**73.72**	**103.82**	**177.54**
2004	30.70	10.63	19.17	18.47	43.99	8.96	22.85	17.16	**67.46**	**111.44**	**178.90**
2005	28.68	6.67	18.61	17.15	44.80	9.04	22.63	24.03	**62.55**	**117.64**	**180.20**
2006	32.44	8.16	27.23	16.38	47.93	8.03	23.81	22.63	**77.88**	**118.78**	**196.66**
2007	54.50	11.12	32.44	15.67	47.78	8.40	21.11	19.60	**111.35**	**112.56**	**223.90**

Scotland — **£m Current Prices (excl. subsidies)**

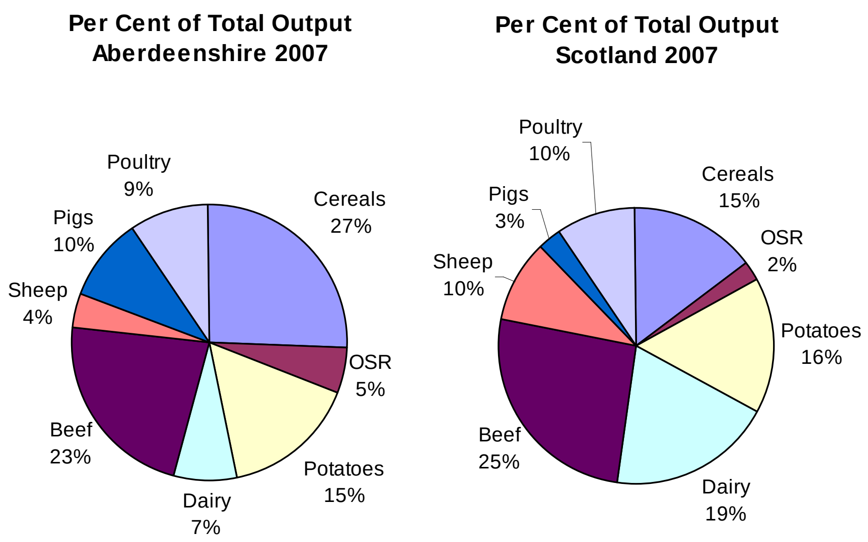
	Cereals	OSR	Potatoes	Dairy	Beef	Sheep	Pigs	Poultry	Crops	Livestock	Total
2003	143.66	29.68	118.00	246.18	309.24	132.54	39.91	115.59	**389.99**	**843.46**	**1,233.45**
2004	137.07	29.88	134.81	253.96	329.98	157.10	40.74	129.18	**400.11**	**910.95**	**1,311.06**
2005	116.11	18.03	109.67	261.67	343.81	156.82	40.44	124.02	**370.69**	**926.76**	**1,297.45**
2006	130.15	22.00	182.94	249.23	366.79	137.00	40.79	125.17	**475.18**	**918.98**	**1,394.16**
2007	211.38	31.45	220.99	267.83	364.63	137.89	36.56	134.35	612.04	941.26	1,553.30

Notes:
1. These estimates currently exclude subsidies - these will be incorporated later.
2. The estimation procedure excludes the value of cereals assumed to be fed to livestock within the region, and store stock assumed to be finished locally.

Figure 6: Trends in Livestock, Crop and Total Output (excluding subsidies) in Aberdeenshire 2003 to 2007

In 2007 more than a quarter of Aberdeenshire's output value (see Figure 7) was accounted for by cereals (Scotland 15%). This excludes the value of grain fed on farm which in one survey (SAOS Combinable Crop Storage Survey 2008) constituted 35% of grain production in Aberdeenshire, but only around 7% in the less mixed Angus/East Perthshire area. Oilseed rape was also relatively more important in the study area than in Scotland as a whole (5% compared with 2%). Potatoes accounted for 15%, slightly less than the national average.

Figure 7: Share of Output Value by Main Crop and Livestock Enterprises, Aberdeenshire and Scotland, 2007



Of the livestock enterprises, the largest share of output came from beef, at 23% of total output. This was (surprisingly) slightly lower than for the country as a whole. Pigs are important in Aberdeenshire, accounting for 10% of output value (3% in Scotland). Sheep (4%), poultry (5%) and milk (7%) were all relatively less important than in the country as a whole.

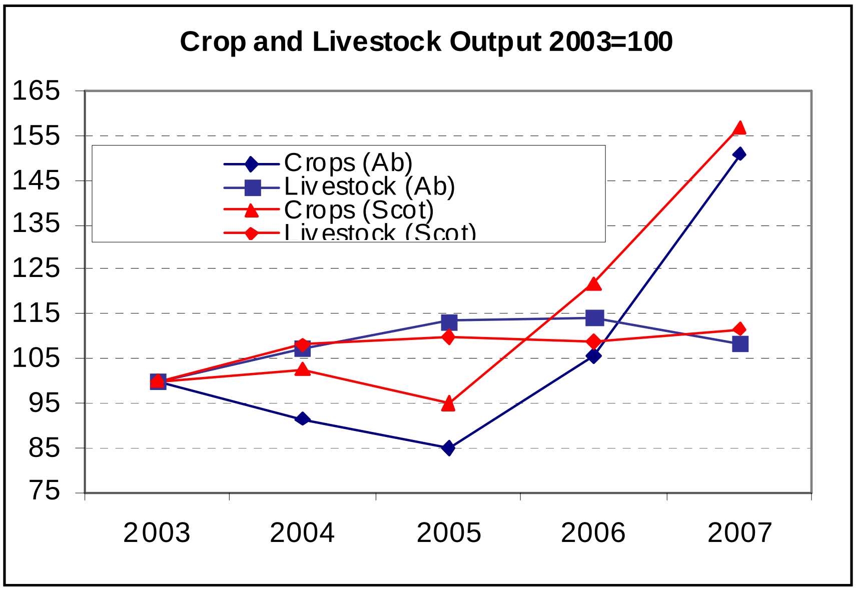
Table 42 presents the output value profile for Aberdeenshire as a percentage of the Scottish total. Overall the study area accounted (consistently) for about 14% of Scottish output. In terms of crop output the proportion was (in every year) higher, ranging from less than 16.5% in 2006 to almost 19% in 2003. The livestock sector in Aberdeenshire accounted for between 12% and 13%. Of the individual enterprises, pigs stand out, accounting for from 56% to 58% of Scottish output. Oilseed rape is also very important (35-37%). At the other end of the scale are sheep (about 6%) and milk output (about 7%).

Table 42: Aberdeenshire output value as a percentage of the Scottish total, by main enterprise, 2003-07

Aberdeenshire	% of Scotland										
	Cereals	OSR	Potatoes	Dairy	Beef	Sheep	Pigs	Poultry	**Crops**	**Livestock**	**Total**
2003	27.02	36.66	15.05	6.88	13.27	5.73	56.13	13.72	**18.90**	**12.31**	**14.39**
2004	22.40	35.58	14.22	7.27	13.33	5.70	56.09	13.28	**16.86**	**12.23**	**13.65**
2005	24.70	37.00	16.97	6.55	13.03	5.77	55.95	19.37	**16.87**	**12.69**	**13.89**
2006	24.93	37.08	14.89	6.57	13.07	5.86	58.37	18.08	**16.39**	**12.93**	**14.11**
2007	25.79	35.36	14.68	5.85	13.10	6.09	57.75	14.59	**18.19**	**11.96**	**14.41**

Figure 8 shows the trends in crop and livestock value in Aberdeenshire and Scotland, over the period 2003-07. The Aberdeenshire and Scottish trends are rather similar. The crop output estimates move gently downwards during the first three years, and then move sharply upwards in 2006 and 2007. Livestock output value is rather more stable, rising gently until 2005, levelling off in 2006, and then (in the case of Aberdeenshire, falling by about 10% in 2006. This fall is not reproduced in Scotland as a whole, where livestock output value increased slightly.

Figure 8: Crop and Livestock Output Value, Aberdeenshire and Scotland 2003-07



More detailed trend data is presented in Table 43, where it may be seen that over the 5 year period the value of potato output in Aberdeenshire increased by over 80%. The trend in cereal output is ‘U’-shaped, ending 40% up on the 2003 level. Poultry output is also substantially up in 2007, though it had reached a peak (50% higher than 2003) in 2005. Beef and sheep output reach levels 16% and 11% higher in 2007 respectively. Pigs and milk output are both significantly lower in 2007 compared with their 2003 level.

Table 43: Output value Aberdeenshire and Scotland, by main crop and livestock enterprise, 2003-07, (2003=100)

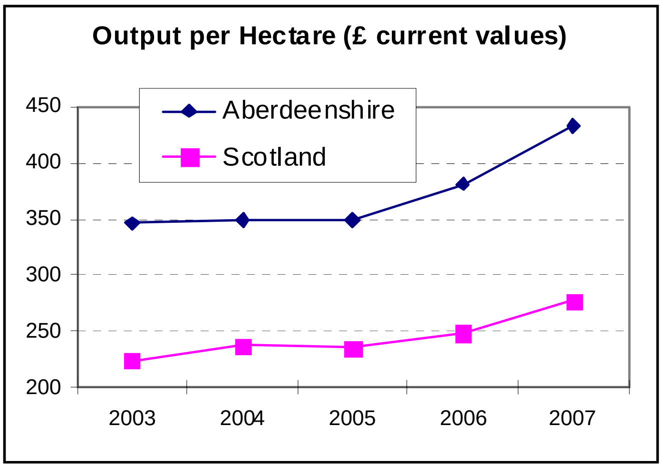
Aberdeenshire	Cereals	OSR	Potatoes	Dairy	Beef	Sheep (2003=100)	Pigs	Poultry	Crops	Livestock	Total
2003	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	**100.00**	**100.00**	**100.00**
2004	79.09	97.69	107.94	109.13	107.18	118.01	102.02	108.23	**91.50**	**107.34**	**100.76**
2005	73.89	61.30	104.83	101.30	109.14	119.12	101.02	151.53	**84.85**	**113.31**	**101.49**
2006	83.58	74.95	153.38	96.77	116.77	105.79	106.30	142.72	**105.64**	**114.41**	**110.77**
2007	140.41	102.18	182.67	92.57	116.40	110.62	94.24	123.62	**151.03**	**108.42**	**126.11**

Scotland	Cereals	OSR	Potatoes	Dairy	Beef	Sheep (2003=100)	Pigs	Poultry	Crops	Livestock	Total
2003	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	**100.00**	**100.00**	**100.00**
2004	95.41	100.64	114.24	103.16	106.71	118.53	102.09	111.76	**102.59**	**108.00**	**106.29**
2005	80.82	60.73	92.94	106.29	111.18	118.32	101.34	107.29	**95.05**	**109.88**	**105.19**
2006	90.60	74.11	155.03	101.24	118.61	103.36	102.22	108.28	**121.84**	**108.95**	**113.03**
2007	147.14	105.94	187.27	108.79	117.91	104.04	91.60	116.23	**156.94**	**111.60**	**125.93**

(iv) OUTPUT VALUE PER HECTARE AND PER AWU

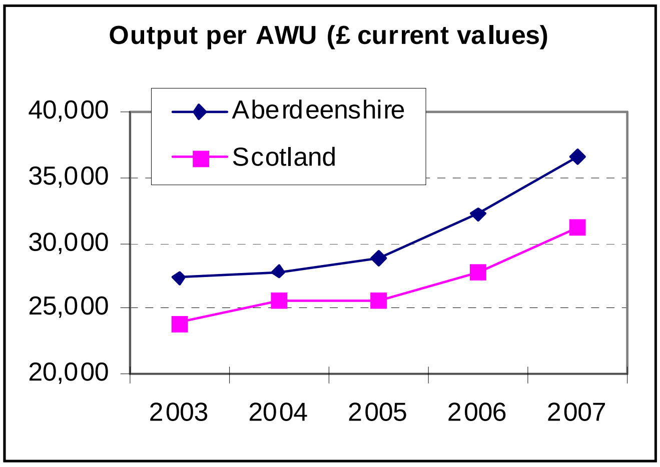
Output value per hectare of agricultural land is relatively high in Aberdeenshire, compared with Scotland as a whole, rising from approximately £350 in 2003-05 to slightly more than £430 in 2007. This compares with a Scottish average of less than £225 at the beginning of the period, and £275 at the end.

Figure 9: Output per Hectare, Aberdeenshire and Scotland, 2003-2007



Average output value per AWU (Annual Work Unit – representing a full-time worker over a year) was also relatively high in Aberdeenshire, rising from about £27,300 in 2003 to £36,500 in 2007. The equivalent Scottish figures were £24,000 and £31,000.

Figure 10: Output per AWU Aberdeenshire and Scotland, 2003-2007



(v) DIRECT SUBSIDIES RECEIVED BY AGRICULTURE IN ABERDEENSHIRE IN 2007

Following the convention of the Scottish Agriculture – Output Input and Incomes Statistics tables, certain subsidies are associated with sectoral output statistics, whilst others are presented separately. By 2007 (as a result of decoupling), only one subsidy (the Scottish Beef Calf Scheme) is included in commodity output. In Aberdeenshire, the SBCS amounted to a little over £3m in 2007, raising beef output in the area by approximately 6%.

By far the largest element of direct subsidy to Aberdeenshire in 2007 (as elsewhere in Scotland) was the Single Farm Payment Scheme. This amounted to a little over £71m. Other forms of direct support were the Less Favoured Areas Support Scheme (LFASS) at £2.7m, and a range of agri-environment scheme payments, totalling £8.2m (almost half of which is RSS and CPS).

Taken together, all these direct support payments had the effect of increasing the agriculture-related output of Aberdeenshire farm businesses by £85m. This equates to approximately 38% of total farm output in Aberdeenshire. In Scotland as a whole, the equivalent figures are estimated to be £543m, and 35%.

3. THE WIDER RURAL ECONOMY

This section aims to give some context of the rural areas in which agriculture and related sectors in Aberdeenshire operate. Agriculture has some impact on the prosperity of rural areas, but increasingly non-agricultural development in rural areas may be creating opportunities and threats which shape agriculture. To help understand what is happening, this section briefly looks at the statistical background of the other main rural sectors (forestry, fishing, tourism) , the food processing sector, rural employment and income trends, population and business trends, and at what is happening to rural services and potential deprivation in rural areas.

(i) FORESTRY

Key points;

• The total area of all types of woodland in Grampian Region is 154,902 hectares. This represents 17.7% of the total land area, and is approximately the Scottish average.

• 98,011 hectares or 63% of woodland is in private ownership and 56,891 hectares or 37% is owned by or leased to the Forestry Commission

• There are a total of 2,498 woods over 2ha in Grampian, with a mean wood area of 62 hectares.

• Conifer woodland is the dominant forest type, representing 72% of all woodland. Broadleaved woodland represents 10%, mixed woodland 6% and open space within woodlands 9%.

• The main conifer species is Scots pine, covering 41,284 hectares or 36% of all conifer species. 68% of all Scots pine is within private woodlands.

• The main broadleaved species is birch covering 10,167 hectares or 50% of all broadleaved species. 93% of birch is within private woodlands.

• “High Forest” covers 124,511 hectares or 91% of land under trees.

• Woodland cover has increased by 23,990 hectares from 15.0% to 17.7% of the land area since 1980.

The 1980 Forestry Census and 1994 National Inventory of Woodlands, are surveys undertaken by very different sampling methods. Within the 1980 Census the minimum area of woodland was 0.25 ha whilst in the Inventory it is 2ha. The apparent differences shown in the following table should therefore be treated with caution, particularly where areas are small.

Table 44: Aberdeenshire woodland area (ha) 1980 and 1994

	Census 31/3/80	**Inventory** 31/3/94
Area (Inc. Inland Water)	875,303	875,530
FC Woodland Area	59,366	56,891
Private Woodland Area	71,546	98,011
Total Conifers	99,436	113,142
Total Broadleaf	10,890	11,369
Total Area of Woodland	130,912	154,902
% Woodland Area	15	17.7

Source: National Inventory of Woodland and Trees, inventory report for Grampian Region, March 1994. Note: not completely comparable.

The most recent Forestry Commission figures estimate that around 10,700 people are employed in the forestry sector in Scotland. Timber production has increased since 2005. However, the increase in demand for timber has not been reflected in an increase in prices, largely as a result of the generally low price level of internationally traded timber, particularly from Scandinavia and the Baltic States. The area of woodland in Scotland stood at 1,337,000 hectares in 2006, representing 17% of Scotland's total surface area and 40% of the UK's total woodland. The area has remained stable over 2005 and 2006 as new planting has reduced slightly and restocking of existing woodland increased. The recent review of forestry grant schemes is resulting in a shift from new forest establishment to maintenance and management of existing forests.

(ii) FISHING

The fishing industry in Scotland has been hit badly since the late 1990s. This has mainly been due to quota restrictions, which have particularly affected catches of demersal (white fish) species including haddock and cod. As a result of this, employment in the sector has been falling over the past decade. However, during 2005 and 2006 the North East ports of Aberdeen, Peterhead and Fraserburgh have shown signs of stability, and employment levels in the sector have levelled off.

Table 45: Employment – Catching Sector

Year	North East Scotland	Scotland	UK	North East as % of Scotland	North East as % of UK
1996	2,366	8,084	19,044	29.3%	12.4%
1997	2,483	8,194	18,604	30.3%	13.3%
1998	2,567	7,771	17,889	33.0%	14.3%
1999	2,377	7,330	16,896	32.4%	14.1%
2000	2,075	6,902	15,649	30.1%	13.2%
2001	2,016	6,637	14,958	30.4%	13.5%
2002	1,739	5,707	14,205	30.5%	12.2%
2003	1,375	5,276	13,122	26.1%	10.5%
2004	1,299	5,275	13,453	24.6%	9.7%
2005	1,384	5,155	12,831	26.8%	10.8%
2006	1,382	5,205	12,934	26.6%	10.7%

Sources: Scottish Government and DEFRA

Between 1996 and 2006 there was an employment loss of over 980 fishermen in North East Scotland, from 2,366 to 1,382. This represents a sizable 41.6% fall. In Scotland the reduction has been slightly less significant, at 35.6% over the same timescale.

Between 2005 and 2006 the number of fishermen in the North East fell slightly from 1,384 to 1,382. The number of fishermen employed in Scotland as a whole rose marginally by 1% over the year, while the figure for the UK rose by 0.8%.

Employment losses in the North East were most significant between 2001 and 2003 when employment in fishing fell by 21%, due to EU quota cuts and decommissioning schemes introduced in 2001 and 2003.

Currently, it is estimated that almost 4,000 people are employed in the fish processing industry in the North East. This is an increase since 2004, but this figure is expected to decline over the next few years. There has been a rise in the use of migrant labour in the fish processing sector, with the majority of migrants coming from the new EU member countries. As yet, there are no reliable estimates on the exact number of migrants working in this sector.

In 2006, 413 vessels were registered in North East Scotland, representing 18.6% and 6.5% respectively of the Scottish and UK fishing fleets. Since 1996 the North East fleet, in terms of vessel numbers, has fallen by 26% (145 vessels). This compares to a 20.7% decline in Scotland and 21.1% in the UK overall, again reflecting the impact of decommissioning on the North East of Scotland. Between 2005 and 2006, the total number of vessels in the North East increased by 5, compared to a reduction of 49 in 2003 and 59 in the year 2002.

Source; http://www.aberdeenshire.gov.uk/statistics/economic/fishing/fishemp_fleet_jan2008.pdf

Despite declines in demersal (white fish) landings, the North East ports now attract a higher proportion of pelagic landings as the onshore pelagic processing sector has expanded. In addition, landings of the relatively more expensive shellfish catches have risen. As a result, although the overall volume of landings has continued to fall, the price per tonne of fish landed has risen, and the fishing industry in Aberdeen and Aberdeenshire has performed better than in other Scottish regions.

Table 46: Volume (Tonnes, Live Weight) of Total Fish Landings by UK Vessels, 1995-2006

Landing District	2006	2005	1995	Change '05-'06	Change '95-'06
Aberdeen	16,710	25,164	27,942	-33.6%	-40.2%
Peterhead	104,998	117,490	112,376	-10.6%	-6.6%
Fraserburgh	30,129	46,705	39,833	-35.3%	-24.4%
NE Scotland	151,837	189,359	180,151	-19.8%	-15.7%
Scotland	289,200	366,260	481,872	-21.0%	-39.9%
UK	416,500	491,700	723,800	-15.3%	-42.5%
NE as % of Scotland	52.5%		51.7%	37.4%	
NE as % of UK	36.5%		38.5%	24.9%	

Source: Scottish Government
http://www.aberdeenshire.gov.uk/statistics/economic/fishing/fishland_volval_jan2008.pdf

During 2005, the volume and value of fish landings increased. Fishermen in the North East have begun to diversify and are moving away from catching demersal species where the most severe Total Allowable Catches (TACs) have been employed and where stocks are most depleted.
In 2005, over 190,000 tonnes of fish were landed in North East Scotland by UK vessels, 6% up on 2004. The rise over 2005 was for all fish species, with the biggest rise at the ports of Aberdeen and Fraserburgh. The value of fish landed in the North East also rose over the same time period from £120.9 million in 2004 to over £153 million in 2005, a 26.8% increase.

Employment over 2005 continued to decline. Between 2004 and 2005, the Scottish Executive indicated that there was a 9% decline in fishermen in North East Scotland, to a total of 1,448. The number of vessels has also fallen. Despite the fall in employment, the North East contributes over half of Scotland's volume of fish landed and over 49% of the value. The region also accounts for over a third of the UK's landings. In 2005 North East Scotland accounted for 29.1% of fishermen employed in Scotland.

Looking to the future, between 2003 and 2021, employee jobs in primary industries (agriculture, fishing and forestry) in North East Scotland are expected to fall by 21% from 4,400 to 3,500. Most of the decline in primary sector jobs is expected to be in the fishing industry, which is forecast to experience a drop in employees of 39%.

Further information; http://www.neser.org.uk/datasheet.cfm?datasheetid=80

(iii) Food Processing

Food processing is one of the North East's most important sectors with around 3,000 employees; in 2004-2005, employment in the sector grew by 17.2%. A 2006 report produced by the Food and Drink Sector Council indicates that food manufacturers in Scotland are upbeat about the future, with the majority of firms expecting their employment levels and turnover to increase over the next 5 years. However, as with other industries, the sector is also experiencing skills shortages. The sector performed well in 2006 with increased profits at Sangs, Deans of Huntly, Macphies of Glenbervie and JG Ross Bakers (Inverurie).

Grampian plays a crucial role in the wider Scottish food and drink industry. The region employs 10,500 people within the industry, which is just over 20% of the total food and drink employment throughout the country. It accounts for 30% of Scotland's food and drink exports and 20% of the country's gross value added in food and drink production. Note, however, that Grampian is a larger area than Aberdeenshire and includes the sizeable food and drink sector of Moray.
Further information at; http://www.aberdeenshire.gov.uk/support/food/news/annualreport07.pdf

Table 47: Scottish versus UK Gross Value Added from Food and Drink Manufacturing, 2000

	GVA (£m) from Food and Drink Manufacturing - 2000
North West	2198
Yorkshire and The Humber	1928
Scotland	**1882**
East Midlands	1639
East of England	1415
South West	1043
London	1045
South East	1036
West Midlands	886
Northern Ireland	468
Wales	470
North East England	376

Source; http://statistics.defra.gov.uk/esg/reports/afq/afqbregsup.pdf

(iv) TOURISM

Occupancy rates for most types of tourist/ visitor accommodation in Aberdeenshire and Scotland as a whole are very similar and are steadily improving (Tables 48 and 49). Caravan and camping site occupancy rates have been lower than the Scottish average in Grampian, which may reflect the greater reliance on business visitors, though the region is now catching up.

Table 48: Average Room Occupancy Rates (%) in Aberdeen and Grampian by Accommodation Type, 2003-2007

	Year				
Accommodation Type	**2003**	**2004**	**2005**	**2006**	**2007**
Hotel	60	59	64	66	64
Guest House and B & B	39	38	41	46	47
Self-Catering	47	50	49	49	52
Caravan and Camping	25	28	20	34	40

Source; http://www.scotexchange.net/a_g_occtable-3.pdf

Table 49: Average Room Occupancy Rates (%) in Scotland by Accommodation Type, 2003-2007

	Year				
Accommodation Type	**2003**	**2004**	**2005**	**2006**	**2007**
Hotel	61	61	63	63	65
Guest House and B & B	45	46	47	45	46
Self-Catering (Unit)	53	32	55	54	53
Caravan and Camping (Unit)	34	36	40	44	46

Source; http://www.visitscotland.org/2006_current_position_summaryupdatedaug-3.pdf
http://www.visitscotland.org/saosgraphs06-07scotland-5.pdf

Findings from the Scottish Tourism Economic Activity Monitor (STEAM) show that the average number of visitors to Aberdeen City and Shire increased by 0.7% between 2004 and 2005. The level of expenditure over the same period increased by 2.6%.

VisitScotland Survey results from 2005 show that almost three quarters of all trips to Aberdeen and Grampian by UK residents were for holidays (73%), while 14% were for business. 56% of all overseas visitors were on a holiday while 10% were on business, with the remainder visiting friends and relatives. Comparison with the previous VisitScotland Survey in 2003 shows there has been a movement away from business-related travel towards holiday travel.

(v) RURAL EMPLOYMENT AND INCOME TRENDS

Forecasts of employee trends to 2021 are presented at Table 50 below. Highlights are as follows.

- Total employment is expected to remain at its current level of around 241,000 for a number of years, despite the anticipated downturn in energy sector employment. The post-2011 decline will be gradual and concentrated in a small number of industrial sectors.
- Looking longer-term to 2021, employee jobs in North East Scotland are expected to decrease by 4.7% from 241,750 (in 2003) to 230,300.

- Areas of growth are expected to be in the service sector (+1.7%), construction (+8%) and self-employment sectors (+12%). Employment contractions are expected in the primary (-21%), manufacturing (-14%) and energy sectors (-36%).
- In 2003 Aberdeen City was home to 63% of the North East's total employee jobs.
- Between 2003 and 2021, employee jobs in primary industries (i.e. agriculture, fishing and forestry) in North East Scotland are expected to fall by 21% from 4,400 to 3,500.
- The bulk of the North East’s primary employee jobs are based in Aberdeenshire (3,850 in 2006). It is assumed that reforms of the Common Agricultural Policy and declining fish quotas have and will continue to place downward pressures on these traditional industries.
- Most of the decline in primary sector jobs is expected to be in the fishing industry, which is forecast to experience a drop in employees of 39%.
- Energy employment passed its peak several years ago and the downward trend will continue. However, the North Sea remains an important producer of hydrocarbons with substantial remaining reserves. The North East Scotland on-shore energy sector will still employ 25,000 people in 2021.
- Employment in the Non-Energy sector is forecast to rise from 176,050 in 2003 to over 179,000 in 2011, before declining to 175,500 in 2021. Some significant infrastructure projects, e.g. the Western Peripheral Route, may result in a sharp if temporary increase in construction employment.
- Self employment has been rising in recent years and a further increase is anticipated in the period to 2021. By 2021, there will be almost 30,000 people in self-employment in North East Scotland, though this covers a wide range of levels of individual activity.

Table 50: Aberdeen City, Aberdeenshire and NE Scotland Employment by Sector 2003 – 2021 Forecast

Employment - Major Sector Breakdown, 2003 – 2021

Primary Sector Employment 2003 – 2021

	2003	2006	2011	2016	2021
Aberdeen City	300	300	200	200	200
Aberdeenshire	4,100	3,850	3,750	3,350	3,300
NE Scotland	4,400	4,150	3,950	3,550	3,500

Manufacturing/Construction Sector Employment 2003 – 2021

	2003	2006	2011	2016	2021
Aberdeen City	18,400	18,100	18,500	18,100	17,550

Aberdeenshire	16,650	16,550	16,600	16,200	15,500
NE Scotland	35,050	34,650	35,100	34,300	33,050

Service Sector Employment 2003 – 2021

	2003	**2006**	**2011**	**2016**	**2021**
Aberdeen City	88,800	89,900	90,800	90,950	90,200
Aberdeenshire	47,800	48,400	49,300	49,400	48,750
NE Scotland	136,600	138,300	140,100	140,350	138,950

Self Employment 2003 - 2021

	2003	**2006**	**2011**	**2016**	**2021**
Aberdeen City	10,200	10,500	11,000	12,000	12,300
Aberdeenshire	16,500	17,000	17,500	17,700	17,500
NE Scotland	26,700	27,500	28,500	29,700	29,800

Energy Sector Employment 2003 – 2021

	2003	**2006**	**2011**	**2016**	**2021**
Aberdeen City	35,200	33,400	30,700	27,100	22,500
Aberdeenshire	3,800	3,600	3,300	2,900	2,500
NE Scotland	39,000	37,000	34,000	30,000	25,000

Total Employment 2003 - 2021

	2003	**2006**	**2011**	**2016**	**2021**
Aberdeen City	152,900	152,200	151,200	148,350	142,750
Aberdeenshire	88,850	89,400	90,450	89,550	87,550
NE Scotland	241,750	241,600	241,650	237,900	230,300

If required, localised breakdown of employment figures can be sourced from http://www.aberdeenshire.gov.uk/statistics/census/Settlements%20KS11a.pdf

Despite the very low level of employment in the primary sectors, the proportion is higher in Aberdeenshire than in Scotland as a whole (see Tables 51 and 52 below). Note the importance of manufacturing, production and construction in Aberdeenshire – attractive for part-time farmers and ex-farm employees - and the lower level of service sector employment.

Table 51: Proportion of Employee Jobs by Area and Industry, 2005

Industrial Group	Aberdeenshire %	Scotland %
Agriculture / Fishing	2.1	1.4
Energy / Water	3.8	1.5
Manufacturing	16.7	9.6
Construction	7.7	5.4
Production and Construction Total	30.3	17.9
Distribution / Hotels Restaurants	22.5	22.4
Transport / Communications	4.8	5.4
Banking / Finance / Insurance	10.8	18.5
Public Admin / Education / Health	26.7	30.3
Other Services	4.7	5.3
Services Total	69.5	81.9
All Industries	100	100

Source: Office for National Statistics (ONS), Annual Business Inquiry 2005

Table 52: Aberdeenshire and Scotland Employment Rates in Primary Sectors (all people aged 16 – 74 in employment, 2001 census)

	Aberdeenshire	Scotland
Agriculture, hunting and forestry	2.14%	5.11%
Fishing	0.3%	1.08%

The service sector in Aberdeen City and Shire accounts for around 75% of employee jobs in the region or just under 185,000 people. The dynamics of the sector are influenced to a large extent by the effects of the oil and gas industry, which has led to a high level of consumer spending. More general issues are the growth of retail multiples and the increased use of the internet for service provision. The largest sub-sector in the North East is public administration, education and health.

According to the Annual Business Inquiry 2005, over 65,000 people were employed in public administration, education and health in Aberdeen City and Shire in 2005. This represents over 26% of the total workforce and a 3.5% increase since 2004.

Over 2004 and 2005, employment in transport and communications in the North East of Scotland decreased from 14,491 to 13,872, a 4% reduction. This sector includes all road, rail and air transport, freight and cargo movement and storage, postal services and communications. The road haulage sector is suffering from a driver shortage and an ageing workforce (according to Skills for Logistics), putting strain on the supply chain for North East businesses.

In 2005-2006, a total of 5,450 migrant workers in Aberdeen City and Shire were allocated a National Insurance (NI) number. This is the highest annual total in the four-year period for which Council-level statistics are available. Of the 12,340 NI registrations to migrant workers since 2002-2003, almost a third have been to Central and East European migrants.

The majority of jobs initially undertaken by in-migrants are in elementary, low-skilled occupations particularly in agriculture, tourism, hospitality and food processing. However, migrant workers may also help to bridge the skills gap in sectors such as construction.

A greater proportion of the working age population in 2005-2006 were economically active in the Aberdeen City and Shire area than in Scotland (82.9% and 79.3% respectively). However, since 2005-2006 the number of people economically active has declined in the North East (-0.2%), largely as a result of decreasing figures in Aberdeen City. The all-Scotland proportion has decreased at the same rate.

In 2006, the average monthly number of unemployed claimants in Aberdeen City and Shire was 3,579, down by 10.8% since 2005. This equates to a claimant count unemployment rate of 1.3%. In Scotland, the rate stood at 2.8% with a count of 89,757 which was up by 1.5% on the average annual figure for 2005. The unemployment total in Aberdeen City and Shire can vary significantly over a period of time. In January to March 2006, for example, the total rose close to 4,000, while in October-November 2006, it fell below 3,200.

Aberdeen City and Aberdeenshire have very low rates of unemployment rates compared with other parts of Scotland. Of the 32 Scottish Council areas, Aberdeenshire had the lowest average rate in 2006, while Aberdeen City had the fifth lowest rate.

Table 53: Claimant Count Unemployment - December 2007

Area	Amount	Quarterly Change
Aberdeenshire	1,073 (0.7%)	+49 (+4.8%)
Scotland	69,165 (2.2%)	-2,339 (-3.3%)
UK	790,370 (2.1%)	-37,518 (-4.5%)

Source;
http://www.aberdeenshire.gov.uk/statistics/economic/labour.asp

Further information at: http://www.neser.org.uk/pdf/acs_economic_review_2007_27.08.07.pdf

Earnings (Table 54) are generally above the Scottish and GB averages.

Table 54: Gross Weekly Earnings, Aberdeenshire, City and Scotland 2004 to 2007

	2004	2005	2006	2007	Change 2004-2007 %
Aberdeen City and Shire	£515.20	£541.70	£569.40	£564.30	9.50%
Aberdeen	£529.70	£572.40	£609.50	£585.10	10.50%
Aberdeenshire	£479.80	£468.40	£479.50	£522.70	8.90%
Scotland	£455.50	£479.00	£499.70	£514.70	12.90%
Great Britain	£500.10	£518.20	£536.80	£552.10	10.40%

Source: http://www.neser.org.uk/datasheet.cfm?datasheetid=29

(vi) POPULATION AND BUSINESS TRENDS

The population of the Aberdeen City and Shire region grew by 3,800 between 2005 and 2006; around three-quarters of the increase was in Aberdeenshire. A growing component of this population change has been the number of EU migrants to the area in recent years.

Table 55: Population Estimates, 2005 and 2006

Area	2005	2006	% Change
Aberdeen City and Shire	439,340	443,140	0.90%
Aberdeen City	205,910	206,880	0.50%
Aberdeenshire	233,430	236,260	1.20%

Source: General Register Office for Scotland (GROS) http://www.neser.org.uk/pdf/acs_economic_review_2007_27.08.07.pdf

The most agricultural, and the least densely populated, parts of Aberdeenshire are not areas of population decline (see Tables 56 and 57 below). The influence of a growing population, mainly as a result of the oil sector, can be found in all parts of Aberdeenshire.

Table 56: Population change in agriculture-employing areas (2001)

Most agriculturally employed areas in Aberdeenshire (and % employed in agriculture), 2001	**1991 – 2001 population increase**
Fyvie (6.45%)	5.57%
Tarland (5.56%)	18.72%
St Cyrus (5.22%)	5.99%
Rothienorman (4.17%)	27.42%
Laurencekirk (3.99%)	19.5%
Scottish average: (2.14%)	*1.27%*

Table 57: Population change in areas of low population density (2001)

Least densely populated areas in Aberdeenshire (and people per ha), 2001	**1991 – 2001 population increase**
Cuminestown (5.48)	24.86%
Fyvie (5.77)	5.57%
New Deer (8.91)	24.76%
Drumoak (9.39)	48.24%
Aboyne (9.66)	6.53%
Scottish average: (0.65)	*1.27%*

Recent economic growth in the North East has been around 2.4% per annum, significantly up on previous years and above the Scottish growth rate, driven by increased energy activity. The area's GVA is the third highest in UK terms. At the same time, local rates of business formation have been consistently higher than the Scottish figure in recent years.

Table 58: Economic Indicators, Aberdeen City, Shire and Scotland

Indicator	Aberdeen City	Aberdeenshire	Aberdeen City and Shire	Scotland
Population (2006)	206,880	236,260	443,140	5,116,900
GVA per Head (2004)	na	na	£21,638	£16,334
New Business Starts per 10,000 Adults (2005)	54	58	57	52
Working Age Population as % of Total Population (2006)	66%	62%	64%	63%
Change in Employment (2005-06)	-0.10%	-4.40%	-0.30%	2.60%
Long-Term Unemployment as % of Total (2006)	4.20%	3.90%	4.10%	6.30%
Economic Activity Rate (2005)	83%	84%	84%	79%
Proportion of Working Age Population with no qualifications (2005)	9%	8%	8%	10%
Average Weekly Earnings by Workplace (2006)	£606.30	£484.90	£569.40	£503.70
2005 GDP (£ million, at constant 2006 values).	6430	2836	9266	
2006 GDP (Estimate £ million)	6649	2924	9573	
2005-2006 Change	3.40%	3.10%	3.30%	2.50%

Over 30% of businesses in Aberdeen City and Shire are in the real estate, renting and business activities sector. A further 20% are in agriculture and fishing, while 16% are in wholesale and retail. These high proportions reflect the large number of small-scale businesses in these sectors.

The rate at which businesses are formed is relatively high in the Aberdeen City and Shire area. In 2005, there were 43 VAT registrations per 10,000 working age people in Aberdeen City and 48 in Aberdeenshire, compared with a Scottish average of 36. The local rates have been consistently higher than the Scottish figure for a number of years

Table 59: VAT Registered Businesses Aberdeenshire and City by Industrial Sector, 2004 and 2005

Industry Sector	Aberdeen City and Shire	Aberdeen City and Shire	Aberdeen City	Aberdeen City	Aberdeenshire	Aberdeenshire
	2004	2005	2004	2005	2004	2005
Agriculture / Fishing	3385	3315	150	135	3235	3180
Mining / Energy / Water	190	190	130	130	60	60
Manufacturing	980	985	425	420	555	565
Construction	1425	1510	455	470	970	1040
Wholesale / Retail	2595	2555	1070	1050	1525	1505
Hotels / Restaurants	955	960	450	450	505	510
Transport / Communications	580	585	220	215	360	370
Finance	55	65	40	45	15	20
Real Estate / Renting / Business Activities	4835	5055	2575	2695	2260	2360
Public Administration / Other Services	750	735	360	350	390	385
Education / Health	190	205	85	90	105	115
Total	15940	16160	5960	6050	9980	10110

Table 60: Business Numbers in Relation to Population Aberdeenshire, City and Scotland

VAT Registrations per 10,000 Adults

Area	**2001**	**2002**	**2003**	**2004**	**2005**
Aberdeen City and Shire	31	34	36	33	36
Aberdeen City	30	35	32	31	34
Aberdeenshire	33	33	41	36	38
Scotland	27	27	29	29	28

(vii) SERVICES IN RURAL COMMUNITIES

As the population in Aberdeenshire ages, local service provision could become an increasingly important issue.

Since monitoring began in 1981, significant decline has occurred in the network of facilities in rural Aberdeenshire, particularly banks (-68%), petrol stations (-65%) and police stations (-59%). There has also been a drop in the number of rural post offices from 138 in 1981 to 86 in 2007 (-38%). This is expected to fall further in 2008 following the Post Office Ltd Network Change Programme.

The decline in rural shops is likely to remain a problem as increasingly large retail developments are choosing to locate in the existing larger service towns, again threatening the survival of shops in smaller settlements. In addition, as access to the internet and broadband increases, rural shops may also be negatively affected by the rising trend in online retailing.

The largest percentage losses over this period were in Garioch (-55%) and Banff and Buchan (-45%).

Table 61: Local shops across Aberdeenshire

Administrative Area	1981	2006	2007	Change 06/07	Change 81/07
Banff and Buchan	111	71	70	-1	-41
Buchan	123	82	84	+2	-39
Formartine	150	123	120	-3	-30
Garioch	84	73	71	-2	-13
Marr	264	224	227	+3	-37
Kincardine and Mearns	94	64	63	-1	-31
Aberdeenshire	**826**	**637**	**635**	**-2**	**-191**

Table 62: Change in Other Facilities

Facility	1981	2006	2007	Change 06/07	Change 81/07
Secondary School	9	8	8	0	-1
Bank	72	22	23	+1	-78
Chemist	26	31	32	+1	+6
Police	29	12	12	0	-17
Fire	15	15	15	0	0
Hall	129	119	118	-1	-11
Library	22	26	26	0	+4
Church	188	159	159	0	-29
MOT Garage	80	74	73	-1	-7
Licensed Premises	221	195	196	+1	-25
Smithy	*	18	18	0	*

Source; http://www.aberdeenshire.gov.uk/statistics/economic/abshireruralfacilities2008.pdf

(viii) RURAL DEPRIVATION

On all the indicators of deprivation (Table 64) the only one of any importance in Aberdeenshire is "Access" i.e. deprivation due to distance from services/ location.

Table 63: Aberdeenshire's share (%) of the 15% most deprived Scottish data zones, for each of the 5 measures of deprivation.

Criteria	2004	2006
Access	38.5	42.5
Education	1	1.7
Health	0.7	1.7
Employment	0.7	2
Crime	NA	4
Overall	0.7	2

Source: Compiled from SIMD 2006 General Report (Income deprivation figures provided as % of population and in 2006 only, therefore not included)

Looking at Aberdeenshire wards (Table 64), very few rank anywhere near the worst in Scottish league tables of deprivation. On the Access measure Strathbogie, Cromar, Slains, Buchan and Deeside rank fairly high (near to or in the top 100)

Table 64: Aberdeenshire Wards ranking within Scottish Indicators of Multiple Deprivation

SIMD - Aberdeenshire Wards, out of 1222 Wards

Ward name	SIMD, rank of SIMD score	SIMD, rank of income domain	SIMD, rank of employment domain	SIMD, rank of education domain	SIMD, rank of health domain	SIMD, rank of access domain
Fraserburgh North	235	170	282	290	176	1183
Peterhead Central-Roanheads	268	252	266	174	325	1193
Clerkhill	449	353	523	225	610	1060
Buchanhaven	451	334	664	175	569	978
Fraserburgh West	472	388	569	375	403	766
Buchan North	536	636	676	420	702	116
Huntly West	564	411	684	766	779	228

SIMD - Aberdeenshire Wards, out of 1222 Wards

Ward name	SIMD, rank of SIMD score	SIMD, rank of income domain	SIMD, rank of employment domain	SIMD, rank of education domain	SIMD, rank of health domain	SIMD, rank of access domain
Banff Ward	565	433	542	629	573	864
Banff West And Boyndie	606	746	532	696	613	210
Macduff	637	517	670	489	520	1056
Lonmay And St Fergus	651	604	839	474	901	163
Gamrie-King Edward	688	742	848	486	946	108
Dales-Towerhill	704	732	927	171	870	602
Durn	740	650	824	703	945	208
Buchan North East	762	885	847	491	846	199
Fraserburgh East Ward	770	665	701	904	387	1180
Central Buchan	778	702	910	720	809	225
Mearns South	828	827	913	724	1117	127
Aberchirder	829	781	889	870	1072	136
Huntly East	861	848	805	950	1010	207
Strathbogie	870	960	981	918	1120	69
Mintlaw-Old Deer	883	854	955	796	1018	189
South Buchan	892	934	1037	864	1059	94
Upper Ythan	900	952	1059	825	1150	88
Cruden	932	863	1008	806	1009	268
Donside and Cromar	933	1002	1063	1086	1138	70
Blackhouse	947	911	985	707	902	420
Upper Deeside	949	1065	1099	559	1141	188
Boddam-Inverugie	955	1041	988	747	967	244
Inverbervie, Gourdon and Johnshaven	964	868	971	769	1088	381
Turriff West	967	839	1038	891	1039	298

SIMD - Aberdeenshire Wards, out of 1222 Wards

Ward name	SIMD, rank of SIMD score	SIMD, rank of income domain	SIMD, rank of employment domain	SIMD, rank of education domain	SIMD, rank of health domain	SIMD, rank of access domain
Inverurie South and Port Elphinstone	968	931	979	511	1075	574
Fyvie-Methlick	973	994	1078	1095	1148	97
Mearns Central	987	917	1070	901	1127	213
Mintlaw-Longside	1001	963	1023	935	1055	269
Insch	1003	1007	1084	977	1157	160
Stonehaven South	1010	857	975	515	1086	1141
Mearns North	1013	1025	1135	1047	1196	123
Kemnay	1016	843	1036	516	1061	1121
Fintray	1018	1156	1188	913	1168	101
Turriff East	1024	922	1033	874	1090	426
Echt	1034	1111	1191	1134	1184	92
Belhelvie	1036	1105	1177	1138	1146	106
Udny-Slains	1041	1187	1204	1088	1204	83
Aboyne	1042	1033	1163	966	1151	197
Chapel and Gadie	1046	1186	1201	756	1198	173
Lower Deeside	1049	1143	1154	1177	1188	113
Mid Deeside	1054	1144	1179	1149	1205	111
Fraserburgh South	1059	1037	1056	781	975	586
Stonehaven North and Fetteresso	1062	1081	1160	978	1191	204
Portlethen North	1066	1032	1097	886	1045	412
Newtonhill, Muchalls and Cammachmore	1073	1158	1205	856	1199	202
Tarves	1078	1146	1160	1151	1186	153
Meldrum	1079	1153	1178	833	1166	248
Inverurie Central	1081	954	940	848	1013	1089
Alford	1086	1097	1187	1094	1216	182
Inverurie North	1095	978	1082	763	1118	768

SIMD - Aberdeenshire Wards, out of 1222 Wards

Ward name	SIMD, rank of SIMD score	SIMD, rank of income domain	SIMD, rank of employment domain	SIMD, rank of education domain	SIMD, rank of health domain	SIMD, rank of access domain
Ythan	1103	1118	1162	1142	1171	231
Kintore and Keithall	1109	1167	1165	1119	1145	232
Portlethen South	1123	1195	1195	837	1130	374
Banchory East and Crathes	1127	1152	1203	1179	1174	233
Logie Buchan	1135	1126	1150	1051	1178	387
Kinellar and Westhill North	1142	1198	1210	1115	1218	259
Ellon Town	1166	1005	1139	1133	1124	786
Banchory West	1175	1051	1145	1191	1144	678
Elrick	1194	1194	1215	1121	1179	563
Stonehaven Central	1211	1139	1157	1037	1175	1075
Westhill Central	1218	1222	1220	1212	1221	773

Sources;

http://www.aberdeenshire.gov.uk/councilhousing/reports/appendix4.pdf

http://www.scotland.gov.uk/Resource/Doc/212557/0056531.pdf

4. THE LAND AND PROPERTY MARKET

Key aspects of the land and property market in Aberdeenshire are as follows:

- A very sharp increase in prices of land and farms over the last 2 years, fuelled by investors in a buoyant economy looking for capital tax favoured homes for their cash, farmers with strong balance sheets and expectations of improved profits, roll-over money from developments, foreign buyers with much higher land values at home, and lifestyle buyers

- Developers buying "land banks" near major towns and Aberdeen, in expectation of major house building plans for the North East

- The high prices have spread throughout Aberdeenshire well beyond the traditional commuter range

- Very keen competition from farmers for any land for lease

- A proliferation of short-term lets, informal cropping deals and on larger blocks a major growth in Contract Farming Agreements (often to avoid tenancy legislation and secure advantages of farmer status for the landowner). Anecdotal evidence suggests that a large area of land is "let" informally on an annual/ seasonal basis, but that the same party occupies the land year after year. Non-rent deals also exist where a farmer grows a crop, receives the sale income and maintains the land in GAEC (Good Agricultural and Environmental Condition) while the landowner collects the Single Farm Payment. In others, there is a small payment or the landowner keeps the straw. Formal Contract Farming Agreements (CFAs) are not a type of tenancy, but in effect are a mechanism which gives the owner a fixed income without actually doing the farming – it substitutes for a tenancy where the legal or tax imperative is to avoid a tenancy. CFAs have been growing in importance, especially in arable areas. A number of traditional landowners and retiring farmers have also taken up stubble-to-stubble contracts where a contractor does all the work including most of the management in return for a contract charge. This is not a tenancy, but it is an alternative to a tenancy for a landowner.

- Some fear that the large area under short lets will deteriorate given the lack of incentive to improve and invest e.g. no lime, deteriorating drains and fencing.

- Some uptake of the new tenancy arrangements (SLDTs and LDTs), but a reluctance among estates and other landowners to adopt long term leases given the fear of resurrection of the absolute right to buy which was proposed, but rejected, under the last round of Scottish Government land reform negotiations.

To illustrate the sort of change which has been happening in how land is being operated, Table 65 presents a case study based on the development of a number of Aberdeenshire estates. The "previous" and "current" categorisation is extremely rough, but probably represents in most cases how these estates have changed over the last 10 to 15 years.

Table 65: Change in Tenure on Selected Aberdeenshire Estates

"Estate"	**Previous Tenure**	**Current Tenure**
A.Upland/Lowground Margin	In hand (farmed by the estate with their own farm manager)	Contract Farming Agreement (CFA) on arable land, seasonal grass lets on all permanent grass
B. Hill and Upland	In hand	Partnership tenancy, now lapsed to annual let
C. Upland	In hand plus range of traditional lets	In hand, traditional lets and partnership tenancies
D. Lowground	In hand	In hand
E. Hill, Upland and Lowground.	Mix of traditional tenancies, partnerships and home farm in hand	No change except portion of home farm on range of "informal" cropping agreements
F. Upland	Mix of traditional and partnership tenancies	Introduced SLDT/LDT model alongside existing arrangements as have split vacant farms between existing tenants
G. Lowground	In hand	CFA and partnership tenancy
H. Lowground	In hand	CFA
J. Lowground	In hand on home farms	CFA on home farms and

“Estate”	Previous Tenure	Current Tenure
	with tenants on range of traditional and partnership tenancies	expanding on to previously partnership tenancy land as terms end
K. Lowground	In hand	CFA
L. Lowground	In hand	CFAs on arable, seasonal lets on grassland
M. Upland	Traditional and partnerships	No change
N. Lowground	Traditional tenancies and partnerships	Partnerships plus SLDT
O. Lowground	In hand	CFAs
P. Lowground	In hand contractor	In hand contractor
Q. Lowground	CFA	In hand

The major shift has been out of unprofitable in hand farming to CFAs. Uptake of SLDT/LDT forms is where there has been no recent history of in hand farming and so no change in perceived status (tax, risk, control of houses) by shifting from Partnerships to the new forms. The total area under CFAs in the estates listed above, is large. Most of these CFAs are with large farming companies or a small number of large farms.

5. MARKETING AND PROCESSING SECTOR ANALYSIS

What happens to the processing sector will have a major bearing on primary production. The processing sectors covered in this brief review include:

- Meat
- Milk
- Cereals
- Input and Service Supply

The pig, poultry and potato processing sectors in Aberdeenshire have declined to such an extent that no significant processing is now undertaken in these sectors. It is acknowledged, however, that some local processing is undertaken in these sectors and could grow in the future e.g. Farmlay egg production.

Information on each sector was gathered by interviews with key stakeholders. The primary focus in this report has been on processors with major facilities in the region.

(i) MEAT PROCESSING

(a) *Background*

This is one of the most important agricultural processing sectors in the region. The livestock sector has been the traditional foundation of farming in Aberdeenshire, and the region enjoys an unrivalled reputation for the quality of its stockmanship and their ability to finish cattle and lambs. Prior to BSE, the livestock processing sector was performing well, with strong export markets (taking up to 30% of production at the peak). Since BSE (1994-2005), the industry has been in crisis and has also faced the added challenge of two foot and mouth disease outbreaks. All of this affected consumer confidence in beef. As a result of these scares, the sector has had to adopt stringent health and hygiene regulations for the handling of animals, meat and safe disposal of waste, which has all added considerable burdens.

The other major influence has been the continued dominance of the multiples in the grocery market. Supermarkets exert major power and drive the meat chain. Processors have found themselves continually squeezed and are often the pinch point between primary producers and the market.

Over the last five years the local sector has experienced considerable restructuring and loss of capacity, with the closure of two Grampian Country Food Group (GCFG) plants – a pig processing plant at Buckie (April 2005, 330 staff) and a chicken processing plant at Banff (Oct 2007, 130 staff)

(b) *Livestock Processed in the Region*

Aberdeenshire has a total of four approved slaughterhouses and 10 cutting plants in the region – see table below. Cutting plants include all four abattoirs plus other smaller businesses who process meat e.g. Donald Russell, The Store.

Table 66: Approved Meat Facilities in Aberdeenshire

Approved facilities	Abattoirs	Cutting Plants
Aberdeenshire	4	10
Total Scotland	38	83

Source: FSA licensed premises

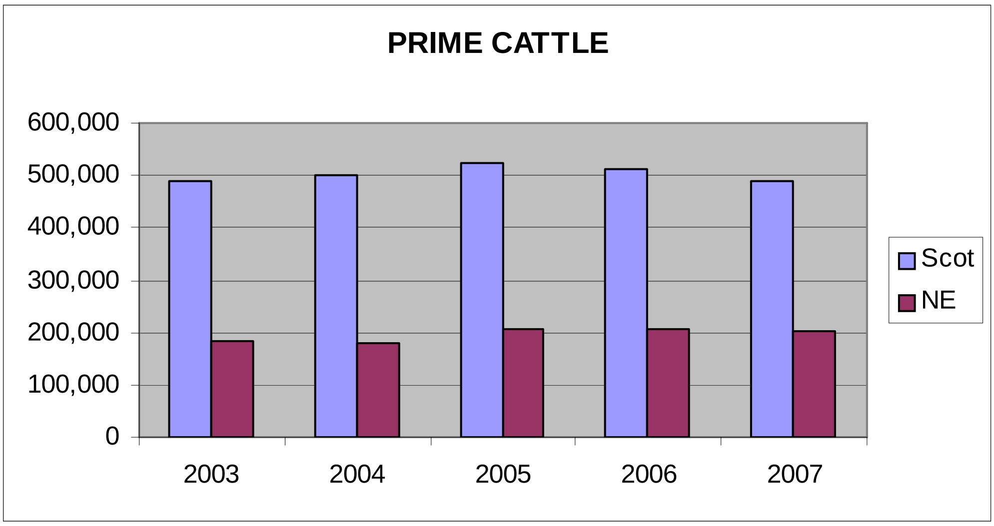
The four approved slaughterhouses are shown in the following table along with the livestock species they process.

Table 67: Species Processed by Abattoir

Slaughterhouse	Cattle	Sheep	Pigs	Organic
McIntosh Donald	√	√	X	Yes
Woodhead Bros	√	√	X	
Scotch Premier Meat	√	X	√	
Mathers Ltd	√	√	X	

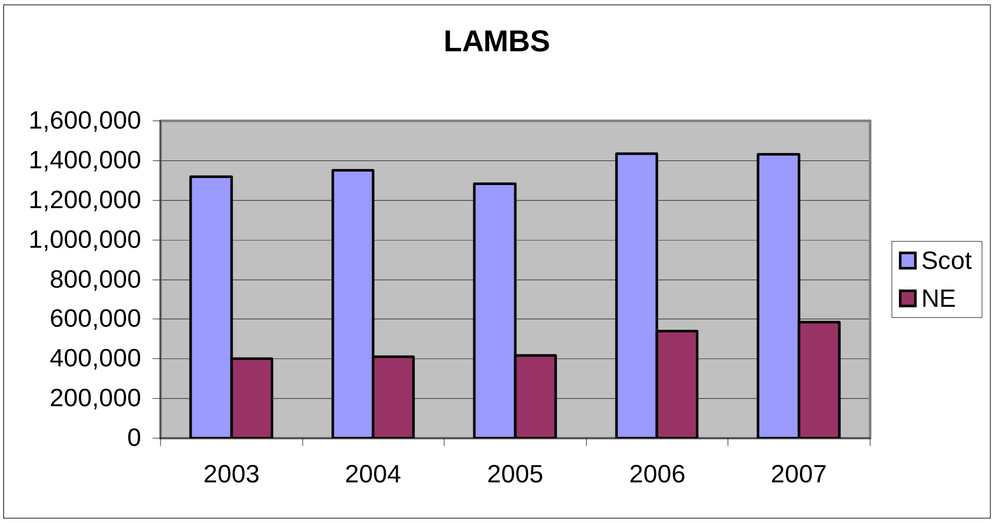
Data was obtained from QMS on livestock slaughtered in the North East during the last five years and national figures for comparison. The North East data includes the throughput from two relatively small slaughterhouses which are located outwith Aberdeenshire (Rhinds of Elgin and Millers, Grantown-on-Spey). The complete data is provided in Appendix 3 and the following graphs (Figures 11 to 13) show the trends in livestock slaughterings for the period 2003 – 2007.

Figure 11: Prime Cattle Slaughterings, North-east and Scotland 2003-07



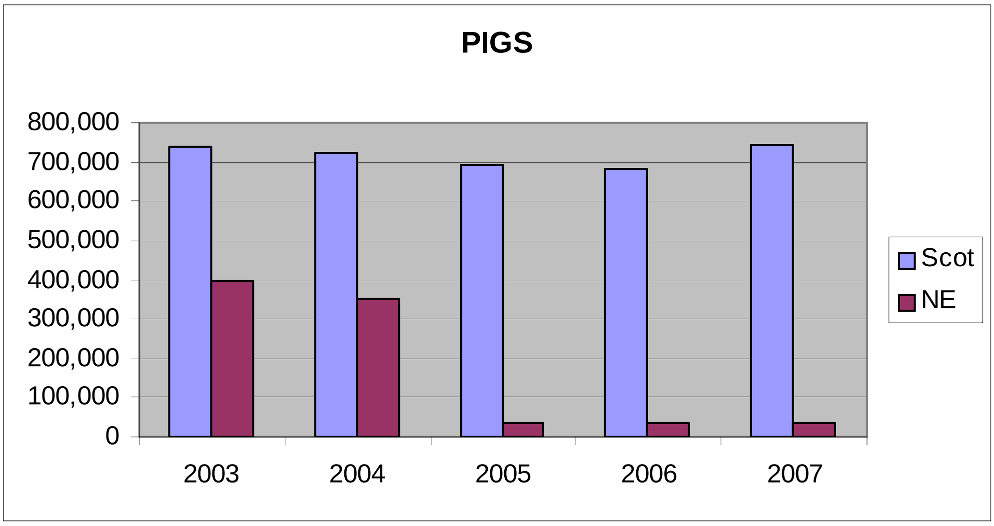
North-east slaughterhouses processed 203,317 head of prime cattle in 2007, 43% of the total prime cattle killed in Scotland (488,268 head). Over the period 2003-07 the north-east region's share of the prime cattle slaughterings increased from 37% to 43% and the average annual kill of prime cattle in the region was 196,000 head. These figures underline the regions importance as the principal destination for finished cattle in Scotland. Only a small number of cull cows are killed in the region: 1,492, only 3% of the national kill (2007).

Figure 12: Lamb Slaughterings, North-east and Scotland 2003-07



A total of 585,218 lambs were slaughtered in the north-east in 2007, some 41% of the total finished lambs killed in Scotland (1,432,054). Over the period 2003-07, the north-east region's share of finished lamb slaughterings increased from 30% to 41%. In addition to lambs, since 2006, the region now slaughters over half (51%) of the total ewe and ram kill in Scotland: 33,654 head in 2007. This again is clear evidence of the region's increasing importance for processing sheep.

Figure 13: Pig Slaughterings, North-east and Scotland 2003-07



Pig slaughterings in the region have experienced significant change. In 2005 the north-east region's share of finished pig slaughterings collapsed from 54% (2003) to only 5% (2007), the result of the closure of GCFG's pig slaughterhouse in Buckie. Although the north-east has 67% of the national breeding herd, finished pigs now have to be transported to Scotland's principal pig slaughterhouse at Hall's of Broxburn, near Edinburgh – they process 85% of the Scottish pig kill. Scotch Premier Meat at Inverurie is now the third largest abattoir for pigs, though the numbers handled are small.

Table 68 attempts to estimate the relative throughputs and employment levels for the four livestock slaughterhouses in Aberdeenshire. Individual figures are not available from QMS for commercial reasons.

Table 68: Estimated annual throughput and employment levels for Aberdeenshire Slaughterhouses, 2007.

Company	Cattle	Sheep	Pigs	Staff	Turnover (£M)
McIntosh Donald	78,000	180,000	0	300	85
Woodhead Bros	58,000	360,000	0	250	75
Scotch Premier Meat	38,000	0	31,000	130	40
Mathers Ltd	28,000		0	120	28
Total	**202,000**	**540,000**	**31,000**	**800**	**228**

The four slaughterhouses have a combined estimated turnover of circa £230M and employ 800 staff. Margins in the sector are very low, with variable profits (estimated at £2-£4M). With the addition of the six cutting plants, the total output for the meat processing sector is estimated to be circa £300M.

(c) *Strengths of the Aberdeenshire Meat Processing Sector*

- Four major abattoirs in region – provides critical mass and focus for the livestock production sector and provides a major market for finished livestock. Other regions such as Dumfries and Galloway have only one major abattoir. 42% of Scottish prime cattle slaughtered in region.
- The concentration and presence of abattoirs has enabled a number of small, but growing, speciality meat businesses to emerge.
- The 'Scotch' beef brand is universally recognised as a premium product and attracts higher prices. Consumer perception is of quality and natural production (however, there are concerns over the reality behind this perception).
- The sector has strong links and good relationships with a range of market outlets, and importantly with all the major supermarkets.

(d) *Weaknesses of the Aberdeenshire Meat Processing Sector*

- Low margins and profitability in sector. Difficult to fund and justify reinvestment.
- Estimate 20% overcapacity in the sector – this impacts on plant efficiency, operating costs and overall competitiveness.
- Aging infrastructure, lack of investment, plants located in the middle of towns
- Aberdeenshire abattoirs are traditional businesses (boning & cuts only), little secondary processing.
- Distance from the main markets – central Scotland and England. (Unclear whether best to process next to primary production or close to markets? General feeling that further processing needs to be close to major food service and retail buyers located in the south)
- Difficult to attract labour – not an attractive industry, competition in oil sector.
- No investment in product development
- No local renderer for livestock waste – adds cost to transport to central Scotland and increases biosecurity risk
- Fifth quarter (offal, blood) has no overall value following BSE

(e) *Future issues / challenges for the sector*

- Real concern over future livestock supplies. With the decoupled SFP and low margins for livestock breeders, the anticipated trend is a reduction in livestock numbers. Abattoirs now have to source more cattle outwith the region – estimated at 10% and increasing. The additional cost of transporting livestock adds cost.
- Over-capacity (20%+) in sector – some restructuring required. Major risk Aberdeenshire will lose one abattoir. Overall will benefit the remaining firms.
- Lack of profitability, imbalance in margin in chain. Lack of investment in infrastructure and product development. Cost of utilities rising; gas, electric, water, etc. Cost of compliance crippling, e.g. proposed changes to Meat Hygiene Service, moving to full cost recovery
- Concern about where future staff will come from. Difficult to recruit staff in region due to low unemployment and buoyant oil industry. (Electricians and engineers near impossible to employ). A third of staff are migrant workers from Central Europe (Poland) – these are now starting to return; who will replace them?
- Climate change and the introduction of carbon accounting. Meeting the proposed Scottish Climate Change Bill. Potentially huge impact on the livestock sector as responsible for major GHG emissions from methane.
- Impact of the Grampian Country Food Group takeover by VION – major pig producer in the area, own McIntosh Donald red meat plant, major feed compounders.
- Impact of a recession on the economy for consumer spending on red meat
- Export markets were very important but with their closure as a result of BSE will take considerable time and effort to rebuild.
- Opportunity → potential new markets for 5th quarter (offal, blood, etc).

(ii) MILK PROCESSING

(a) *Background*

The number of dairy producers in Aberdeenshire has contracted from 120 (1999) to currently 70 herds. In the past, when a producer ceased production, the impact on processors was absorbed by larger herds expanding – that trend has now stopped.

Nationally milk production is in steady decline. The driver for the decline in milk production is the lack of profitability, need for reinvestment, and demanding hours.

There is only one major milk processor in the region – Robert Wiseman Dairies – and two further small processors; Mackies Ice Cream and Mitchell's Dairy. There are a few small producers of yoghurt drinks and farmhouse cheese.

(b) ***Robert Wiseman Dairies PLC***

Wiseman's took over the plant based in Aberdeen in 1994 from Kennerty Dairies. The Aberdeen plant is one of six processing plants operated by Wiseman's in the UK. The company only handles liquid milk; no further processing is undertaken. Cream is a by-product, sold by a broker, and normally transported by road tanker to the continent.

The company have 100% of the milk producers in the region. The plant processes 1.3ML of milk per week – some 67ML per annum. The estimated turnover is £33M, employ 95 staff (20% Polish).

Plant running at 60% capacity - used to process 2.3ML per week until they lost the Asda contract (2004/05). In past, when processing 2.3ML per week, they had to tanker milk from outwith the region into Aberdeen. With current markets, surplus milk is now exported from the region.

New milk producers (or those wishing to return to dairying) may now find it difficult to find a market for their milk. Wiseman's would consider any new producers carefully.

(c) ***Strengths of Milk Processing Sector***

- Small number of dairy herds (70) but they are large and probably more efficient than the national average (but no real evidence)
- An efficient, modernised liquid milk processing plant in region
- Demand for milk increasing
- A ready market from Aberdeen city and surrounding area on doorstep

(d) ***Weaknesses of Milk Processing Sector***

- No significant volume of production is processed for added value.
- Vulnerable to the procurement policy and decisions of major multiples
- Difficult to pass on additional costs from environmental burdens (e.g. NVZs) to the market.

- Cost of milk production higher in Aberdeenshire compared to the south-west of Scotland. Longer winters and less favourable climate for grass growth. Recently, high price of cereals and other feeds.

(e) *Future issues / challenges for the sector*

- Sector at a critical level for scale. Major concern if milk production continues to contract.
- Profitability of milk production is vital to maintain dairy producers
- Labour supply difficult. Sector operates in a very competitive labour market
- Rising energy and utility costs. Margins continually being squeezed.
- Sector driven by major retailers so have little influence in the chain.
- There may be opportunities for speciality cheese making and other dairy products to niche markets. However, these will only take small volumes and are heavily dependent on personal commitment and drive. Breaking into a market not easy.

(iii) COMBINABLE CROP SECTOR

The arable sector has increased in importance for primary producers, and therefore the structure of the arable merchanting and processing sector will have a major influence on arable production in the region. Approximately a third of the total Scottish cereal crop is grown in the north-east.

(a) *Malting, brewing and distilling*

The markets for malt and malting barley are expanding, driven by the growing international demand for Scotch whisky. The prices for malting barley have significantly increased since 2007, and prospects in the medium term are excellent. Prior to the expansion in the demand for Scotch whisky, the distilling and malting sector was in contraction, with weakening sales, over capacity and low profitability resulting in the closure of facilities. The new market conditions have heralded an era of confidence and investment in the sector which indicate good future prospects for malting grain growers. A number of distilleries and maltsters have announced significant investments for the first time in decades. The expectation is that demand for malting barley will increase which provides real market opportunities for arable farmers in the region.

Table 69 shows the capacity of malting plants in the North and North East. These draw malting barley from Aberdeenshire. The national demand for malting barley is estimated by the trade at 750,000t (2008). It should be noted that the distillery sector requires low nitrogen (N) malt which is a speciality of Scotland and not widely available from competitor countries. Scotland is unique in that virtually all the malting barley produced (90%) is low N for malt distilling, with only a small percentage (10%) high N for the grain distilling market.

Table 69: Capacity of Existing and Planned Malting Plants in North and North East Scotland, 2008 (Tonnes)

Source: Trade estimates

	Current	Additional
Greencore, Buckie	50,000	25,000
Diageo, Rose Isles	200,000	
Crisp, Portgordon	50,000	
Highland Distillers, Tomdu	18,000	
Bairds, Inverness	25,000	
Grencore, Glenesk, Montrose	65,000	
Bairds, Arbroath	45,000	35,000
	453,000	**60,000**

(b) *Animal Feed Sector*

Nationally the animal feed sector is the largest market for combinable crops. Aberdeenshire is fortunate in having a number of animal feed companies and mills in the region. They provide compounds and straights to the beef, pig, poultry, dairy, and sheep livestock sectors.

The tonnage of feed barley and wheat purchased annually by feed mills vary depending on ration formulation and the relative prices of substitutes. The decline in livestock numbers and over-capacity in feed mills means the animal feed sector is very competitive.
Table 70 shows the major animal feed firms and mills in the region.

Table 70: Major Aberdeenshire Animal Feed Firms and Mills, 2008

Grampian Country Food Group, Turriff	
East Coast Viners, Drumlithie	
Harbro, Turriff	
Norvite, Insch	
Turriff Blends (BOCM)	
Total Grain purchased	**200,000**

(c) *Grain Merchanting Sector*

The merchanting sector has experienced considerable restructuring over recent years. The number of national companies has declined, but the number of regional firms has remained steady. Overall, the number of people employed in the sector has declined as firms centralise their business functions. It is not unusual to have specialised functions such as accountancy, HR and logistics planning removed from a local level and undertaken at a central location. This is in response to economic pressure and the need to improve efficiency. Improved IT and operating systems have allowed this change in work practices to occur with the minimum of disruption to operations. Although there has been significant change in the merchanting and supply sector, the impact on farmers has been minimal. The market appears to operate effectively with a good range of suppliers and competition. It was reported that there is a trend towards less loyalty to individual merchants from growers.

The sector experienced considerable challenges when grain prices were at record lows – for example, in the period 2002-06 when grain was at £60 - £80 per tonne.

The main firms in the merchanting sector include:

- Frontier
- Grainfarmers
- Scotgrain
- Grainco
- WN Lindsay

(d) *Strengths of Combinable Crop Sector*

- Combinable crops in Aberdeenshire have a range of market outlets in close proximity. It is estimated that crops need only travel 30 miles to a destination, which lowers transport costs and improves efficiency. For example, all feed wheat grown in the region (120,000t) has a local market; either distilling at Invergordon, or animal feed compounders. Oats, although a minor crop, almost all go to the Oat Mill plant at Boyndie (30,000t).

- Geographic location relative to whisky distilleries and maltsters. The Scottish whisky industry is massive, demand is increasing, and a market for malting barley is on the region's doorstep.

- The demand for malting barley suits the region's cropping pattern which has 70% of its grain production in spring barley (that compares to the Borders, for example, which has 70% of its grain production in winter cereals).

- The strategic location and ready access to a number of ports in the region allow efficient export opportunities. Ports regularly used include: Banff, Fraserburgh, Peterhead, Aberdeen and Montrose. These facilities also permit import opportunities. For example, Yara import fertiliser direct from Norway in bulk, which is then bagged and distributed from a base in Turriff.

- The region is well serviced by a range of grain merchants and co-operatives. Good mix of regional and national companies ensure a competitive, quality service.

- Presence of a major livestock sector and associated animal feed compounders in the region ensures a strong demand for feed grains.

- Generally mixed farming in the region. This provides opportunities for beneficial rotations, creates demand for own feed, and reduces business risk.

- Climate and soils suit OSR production. The yields of OSR can be the highest in the country. It is an important break crop. Ready access to a range of ports means OSR is efficiently transported to markets in mainland Europe.

(e) *Weaknesses of the Combinable Crop Sector*

- Restrictions in soils, northern location and climate limit the range and yield of combinable crops. Harvest is late relative to other areas of the UK and Europe. This can affect final yield and quality and does increase risks, especially in a late wet season. In addition, all crops have to be dried for safe storage which adds cost.

- Perception in the trade is that many farmers in region have a lower technical ability (in husbandry and marketing) than arable farmers in other regions of Scotland (e.g. Angus, Tayside, Fife, and Borders). This is difficult to substantiate. May be explained, if true, by the prominence of livestock and a legacy of tradition and culture. Arable farmers in the main grain regions of Scotland are typically dedicated professional cereal producers, in many cases with no livestock enterprise.

- Aging grain drying, handling and storage infrastructure. Applies to both on-farm and merchanting / processing sector and is a result of years of low grain prices, low profitability and lack of investment. A survey of growers in 2006 conducted by SAOS indicated that aging on-farm infrastructure was a major problem, particularly drying capacity. In many cases, grain drying, handling and storage systems were designed 30 years ago and were now struggling to cope with the increase in production on farms and meeting market specifications.

- Lack of haulage companies and infrastructure. The number of haulage firms and lorries have steadily declined over the last five years. The region has few national fleets e.g. nobody has over 50 lorries. Number of haulage firms now at a critical level, as better rates available elsewhere and due to staff shortages.

- Generally, there is “disconnect” in the supply chain. Little evidence of dedicated supply chains and many growers playing the market in response to prices. Traditionally not a lot of trust in the sector.

(f) *Future issues / challenges for the Combinable Crop Sector*

Volatility is a feature of this sector. Arguably of all the processing sectors, the combinable crop sector is the one most exposed to international markets and global prices. Cereals and oilseed rape are simply commodities traded on the world market. The volatility increases the risks inherent in the sector, and the need for effective risk management strategies.

Recruitment and labour supply are major concerns. This applies at all levels throughout the chain; professional, skilled and semi-skilled staff. Many companies have a need for succession planning.

The lack of grain handling and storage capacity is a barrier for future development. Maltsters require malting barley to be dried down to 12% moisture content which places enormous pressures on infrastructure. The malting barley market is very short; operating from mid-August to mid-December. The sector needs investment in professional stores as end-user specifications increase with public concerns on food safety and traceability.

There is real opportunity for a more dedicated, collaborative supply chain approach. The new concerns over security of supplies should encourage more collaboration along the supply chain.

Haulage industry is now at a critical level. Tremendous pressure to improve efficiency, reduce costs to provide adequate returns. Standard loads now 28 –30 tonne so loading and unloading times, logistics management important to improve throughput. Firms report major problems and delays when travelling through Aberdeen city.

Impact of climate change on the crop sector is unclear. May provide opportunities for new crops to be grown in the region. The world demand for combinable crops is expected to increase as population and standard of living increase, particularly in developing countries. The impact of carbon management is still unknown although it could have a major impact in the future.

In the medium term the prospects for the malting barley sector is bullish. Distilleries will require increased quantities of malting barley. This represents a good opportunity for the next 3-5 years.

(iv) THE INPUT SUPPLY AND SERVICE SECTOR

The agricultural input supply sector provides the raw materials and services which underpin farm activity. The sector makes an important contribution to the industry and represents the starting point of all food and drink supply chains. The sector is represented by a wide range of businesses, many of which are small, operating only on a local basis. Detailed information and statistics on the scope and scale of the sector do not exist. The sector is does, however, have a number of trade associations which include the following:

- Agricultural Industries Confederation (AIC) see www.agrindustries.org.uk
- Agricultural Engineers Association (AEA) see www.aea.uk.com/
- British Agriculture & Garden Machinery Association (BAGMA) see www.bagma.com/
- British Veterinary Association see www.bva.co.uk
- Road Haulage Association see www.rha.net/

The following provides a brief overview of key segments within the agricultural input supply sector, noting trends and relevant issues. The merchanting sector which supplies most crop inputs has already been discussed under the Combinable Crop processing section. Most input suppliers are also grain merchants, though there are a few smaller players who only supply inputs or act as intermediaries for farmers getting prices from several merchants. For example Ringlink has recently moved into this role.

1. Livestock Inputs and Services

Animal Compounders

As discussed earlier the animal feed sector is the largest market for combinable crops (when home use is included). Aberdeenshire is fortunate in having a number of animal feed companies and mills (see table below). They provide compounds and straights to the beef, pig, poultry, dairy, and sheep livestock sector.

It should be noted the tonnages of feed barley and wheat purchased annually by feed mills vary depending on ration formulation and the relative prices of substitutes. The national decline in livestock numbers and over capacity in feed mills means the animal feed sector is very competitive.

Table 71: Major Animal Feed Firms and Mills

Grampian Country Food Group, Turriff	
East Coast Viners, Drumlithie	
Harbro, Turriff	
Norvite, Insch	
Turriff Blends (BOCM)	
Total Grain purchased	**200,000**

Veterinary Practices

- Rural veterinary practices have seen their farm work decline sharply and are struggling to remain profitable, if reliant on the farm animal market. Large animal work (excepting horses) has severely contracted with activity levels halved. The slack has been taken up by a move into small animal (pets) work.
- In the past rural veterinary practices would typically involve 75% large animal and 25% small animal work. Typically these activity levels have now been reversed.
- The decline in dairy herds is cited as one of the reasons for the loss of business. Traditionally dairy cows provided the core of farm work (fertility, calving, feet, etc). Livestock farmers with feeding cattle will rarely use a vet.
- Other reasons for the loss of business include animal medicines and drugs being more widely available, pressure from livestock producers to reduce costs, increasing competition from practices outwith the region.
- Veterinary services to pig producers in Aberdeenshire are now largely provided from the North of England, due to the high degree of specialist knowledge required. This involves regular health visits, but no emergency service, which now has to be covered by farm staff.
- As a result of these pressures many rural practices have restructured and merged to form larger practices to drive down costs and improve profitability.

- It is increasingly difficult to attract new vets to Aberdeenshire. In addition young vets are not getting large farm animal experience – the rural vet with a career based on farm work is disappearing.
- Pharmaceutical companies are consolidating into a few, very large multinationals. They exert real power in the animal health products market.
- In conclusion, this is an important service sector that has experienced major change and is now, in some areas, at a critical level in terms of its ability to service a large number of farmers. The profession feel that there is a risk of not being able to respond effectively to a major animal health outbreak.

Livestock Hauliers

- The number of livestock hauliers has declined markedly over the last 10 years, especially amongst small, local single lorry operators.
- Operating costs continue to rise, particularly fuel, licensing and maintenance, with margins squeezed.
- New UK and EU legislation has impacted on the sector, requiring more checks, more down time cleaning and continual upgrade costs.
- There are concerns about the future of this important support service, though Aberdeenshire has a number of large scale dedicated livestock haulage businesses which have invested heavily in modern floats.

2. General Inputs and Services

Machinery manufactures and dealers, building fabricators

- The trend is for farmers to purchase larger tractors and equipment – this replaces labour (the average size of tractor purchased in the UK is now 135hp).
- Tractors are working harder; annual hours 1,250 – 1,500 hrs.
- Machinery firms report it is very difficult to recruit and retain skilled staff e.g. mechanics. They find very well paid jobs in the oil-related industry
- No change in the number of firms in the sector.
- Tractor manufacturers still operate single franchise dealerships. These multinational companies exert tremendous power in the sector.
- Most machinery is purchased on finance deals, mostly provided by the manufacturers.

- Firms operating in the sector still conduct business on traditional lines with representatives going on farms. The personal touch is viewed as important as farmers increasingly become less loyal to one brand or dealer. The use of the internet, particularly to source second-hand machinery is a threat to local businesses – many more NE farmers travel south to buy equipment where prices are much keener.
- Farmers operate in tighter windows, increasing the pressure for 24 hour back-up services.
- There are very few machinery manufacturers in the area. Major items of equipment are now very high tech and large multinationals dominate. However, the region has a nationally important duo of trailer manufacturers and a number of manufacturers of specialist equipment such as loader attachments and grain equipment. Many formerly agricultural smiddies and light engineering works are now focused on the oil sector.
- The area is well serviced by local suppliers of steel-framed agricultural buildings, all of whom also do general industrial work. Independent design services are available from SAC at Craibstone.

Banking & Financial Services

- All the national banks are active and well represented in the region. All have agricultural banking experts based in the area.
- There has been a trend for smaller local bank branches to close with services transferred to larger town branches and "business centres". This is not thought to have caused major disruption to agricultural customers.
- There is increasing use of electronic banking resulting in fewer cheques being issued and less need to physically visit a branch.
- The recent credit crunch, which is affecting all sectors of the economy, has had little impact on the agricultural industry as yet. Credit is still readily available, although the cost has increased – however, still historically low at around 7%. Some of the worst affected banks have, however, cut their agricultural staff numbers and are being much tighter on lending decisions.
- Owner occupier balance sheets and net worth have increased significantly. Land values have more than doubled over the study period and are expected to remain strong, despite the economic downturn.
- Tenant farmers have not experienced the boost to their balance sheets and have to rely more on farm incomes.

- Cash flow patterns have changed with a marked increase in the demand for working capital this year. This is a result of changing payment terms (particularly fertiliser) and the sharp increase in input prices.
- The increase in working capital and cost of land (and rents) has increased the barrier for new entrants. Banks find it difficult to support new entrants unless they can provide security from family sources. The much heralded new entrants scheme has not yet had the impact expected.
- There is increasing uptake of Euro accounts, with an estimated 5% of all farm accounts. This allows the SFP to be received in Euros, allowing conversion when exchange rates are advantageous.
- In conclusion, the banking sector is very competitive and provides good service to the agricultural industry.

SGRPID (Scottish Government Rural Payments and Inspections Directorate)

- Having a SGRPID area office located in Aberdeenshire is a major advantage.
- The area office (located at Thainstone), is a relatively new facility and is very accessible to farmers and rural business in the region, especially given its proximity to Thainstone mart and the other agricultural businesses on this site.
- The agricultural community recognise and appreciate the service and support provided by SGRPID staff.

(v) PROCESSING SECTOR CONCLUSIONS

1. The agricultural processing sector is very important for Aberdeenshire. It provides ready markets for farm production, adds value to primary produce, provides employment (often rural) and makes a contribution to the wider rural economy. Without a vibrant, thriving processing sector Aberdeenshire farms would be disadvantaged.

2. There is symbiotic relationship between farms and processors, both being inter-dependent on each other. Processors have concerns over future supplies of quality raw materials from farms. Many fear farms may scale back production.

3. The trend in the manufacturing and processing sector is towards increasing scale, to lower costs and increase competitiveness. The question is; can local processors stay competitive

or will capacity be displaced elsewhere to a larger more centrally located plant? The region has lost processing capacity in many sectors (pigs, poultry, potatoes and milk).

4. Across all processing sectors, firms report rising costs, a squeeze on margins and low profitability. This is affecting their ability and confidence to undertake much needed reinvestment.

5. The dominant power and influence in the food chain lies with the major multiples. Local processors are vulnerable to changes to procurement policies and requirements of individual supermarkets. Market expectations and specifications are increasing as consumers become increasingly more sophisticated

6. The supply and availability of labour is a key issue. The region has a very tight, competitive labour market. Traditionally the processing sector has relied heavily on immigrant workers from the new EU accession countries. There is now evidence that this supply is declining. Numbers allowed from the newest entrants – Romania and Bulgaria – are limited.

7. Climate change and the reduction of greenhouse gas (GHG) emissions are anticipated to have a major impact on the sector. The proposed Scottish Climate Change Bill sets very ambitious targets for an 80% reduction in GHG emissions by 2050. At present, the sector is unsure how to respond if the Bill is enacted. It would require considerable support for any major mitigation strategy.

8. Local processors currently perform very little secondary processing or added-value activities. To capture any potential opportunity will require market research, additional investment in plant and staff training. The growth of small new businesses may provide the vehicle for this added value activity, rather than grafting on to existing large commodity businesses.

9. A sustainable processing sector will depend on its ability to enhance competitiveness mainly by deriving benefit from distinctive capabilities and delivering market value from a more collaborative supply chain. Processors will have to play a key lead role in forming closer more dedicated supply chains. This is consistent with Scottish Government's strategies for both agriculture and the food and drink sector.

6. CAP POLICY CHANGE THREATS

(i) THE CAP HEALTH CHECK

The CAP Health Check is a further revision of the CAP Mid-Term Review, which was itself a review and ultimately major revision of the Agenda 2000 reforms. The proposals under the Health Check are well documented elsewhere and will not be repeated in detail here. The Scottish Executive put the proposals out to consultation, with submissions required by 5 September. The Commission timetable is for agreement of any changes in winter 2008/09, though this is expected to be optimistic.

(a) *Main aspects of the proposals*

1. Further simplification of the SFP regime.

This includes removing set-aside obligations, changes to SFP entitlement usage rules and tweaks to cross-compliance and GAEC. More importantly for Scotland and Aberdeenshire it introduces scope to extend the use of National Envelopes (currently a beef National Envelope operates in Scotland removing 10% of everyone's historic beef payments and applying it as a headage payment on beef calves), especially in areas subject to restructuring. This raises hopes in some quarters of a beef cow headage payment, but the rate could be severely limited by the budget allowed for this measure. Similarly, the National Reserve could be reopened by top-slicing all SFPs to create a fund for example for new entrants. However, the National Reserve and National Envelope cannot both be used for areas subject to restructuring – a choice must be made between the two.

2. Further decoupling.

This pushes member states who did not fully decouple to do so and does away with the protein crop and energy crop schemes. In addition, there is the option for those who adopted a historic SFP regime (such as Scotland) to shift to a flat-rate regime (such as in England) from 2010. This could be done in 3 progressive annual steps. This would have major implications for Scotland, given the huge variations in scale of entitlement between the west Highlands and east coast intensive stock and arable areas.

3. Market Measures.

This would basically remove all remaining intervention except as a safety net for crises, and increase milk quotas prior to abolition in 2015.

4. Minimum thresholds.

Only paying SFPs above a certain size (250 Euro) or area (1ha)

5. Progressive Modulation

This has two aspects. Firstly increasing EU compulsory modulation (which stands at 5% at present) by 2% per annum from 2009 to 2012. Secondly those with SFPs exceeding 100,000 Euros would be subject to additional modulation of 3% on the 100,000 to 199,999 band, 6% on the 200,000 to 299,999 band and a further 9% on anything above 300,000 Euro.

(b) *Analysis of the impact of the Health Check modulation proposals*

Progressive modulation is perhaps the most pressing area for Aberdeenshire. How much money will it take off Aberdeenshire, how many businesses does it affect, and are some administrative regions more severely affected than others? The potential impact is assessed below.

Tables 72 and 73 show the current and proposed modulation rates, while Table 74 shows the net increase which results from the proposals.

Table 72: Current modulation

	2007	2008	2009	2010	2011	2012
Compulsory EU modulation <5000 euros >5000 euros	 0 5	 0 5	 0 5	 0 5	 0 5	 0 5
Scottish voluntary modulation (applies to whole SFP including first 5000 euros)	5	8	8.5	9	9	9

Table 73: Proposed modulation

	2007	2008	2009	2010	2011	2012
Existing Compulsory EU modulation <5000 euros >5000 euros	 0 5	 0 5	 0 5	 0 5	 0 5	 0 5
Proposed extra compulsory EU modulation;						
5000 – 99,999 euros			2	4	6	8
100,000 – 199,999			5	7	9	11
200,000 – 299,999			8	10	12	14
above 300,000			11	13	15	17
Scottish voluntary modulation (applies to whole SFP including first 5000 euros)	5	8	absorbed into new compulsory modulation	absorbed into new compulsory modulation	absorbed into new compulsory modulation	absorbed into new compulsory modulation

Combining Tables 72 and 73 gives the increases in modulation in Table 74 below.

Table 74: Extra modulation as result of Health Check Progressive Modulation Proposals

	2007	2008	2009	2010	2011	2012
5000 – 99,999 euros			0	0	0	0
100,000 – 199,999			0	0	0	2
200,000 – 299,999			0	1	3	5
above 300,000			2.5	4	6	8

The extra modulation is not as big as might be expected given the headline figures in the Health Check proposals, because the planned Scottish voluntary modulation rate was already quite high.

In Table 75 we have analysed the distribution of 2005 SFP payments by Aberdeenshire region and by size. In total Aberdeenshire and City received around £72M of SFP in the first year (2005) after decoupling. The average Aberdeenshire SFP is around £24,000, but around 8% of businesses receive more than £70,000 (around 100,000 euros) each and around a third of the total regional

SFP payout. SFP is skewed most toward large businesses in Kincardine and Mearns and least in Aberdeen City, Marr and Garioch. Some areas, e.g. Buchan, have their distribution and average skewed by one or two very large SFP payments. The largest Aberdeenshire SFP was £822,641, the smallest £15.

Table 75: Single Farm Payment 2005 Distribution

	No. of SFP recipients	Total SFP £	Average per business £	Percentage of businesses with SFP exceeding £70,000	Proportion of total SFP received by businesses with payout greater than £70,000
Aberdeen city	75	1,520,157	20,269	4%	25%
Formartine	561	14,623,426	26,067	9%	35%
Kincardine and Mearns	389	11,495,895	29,552	10%	40%
Garioch	448	9,425,162	20,991	5%	32%
Marr	641	15,521,255	24,214	6%	29%
Buchan	474	11,786,967	24,867	8%	42%
Banff and Buchan	357	8,271,858	23,170	7%	32%
Aberdeenshire	2,990	72,759,465	24,334		

For the following table we have taken the list of individual SFP payments received by Aberdeenshire businesses in 2005 and converted these back to Euro allocations prior to 2005 National Reserve, EU and UK modulation deductions taking into account the 5,000 Euro exemption for EU modulation. We have then allocated payments to bands and applied the extra modulation percentages in Table 71. All figures are in Euros.

Table 76: Size and Regional Distribution of SFP in Aberdeenshire

		B & B	B	F	G	M	K & M	AC	Total
SFP < 5,000 Euro	No. of businesses	89	136	142	138	82	19		
	Euros	160,038	274,152	269,133	270,060	177,958	37,993		
SFP 5,000 - 99,999	No	253	308	384	293	473	277	53	
	Euros	7,882,208	8,997,660	13,039,437	8,519,202	14,463,365	9,208,614	1,396,429	
SFP 100,000 – 199,999	No	13	22	31	13	24	23	2	
	Euros	1,737,826	2,839,059	3,968,127	1,742,759	3,199,752	3,147,219	279,686	
SFP 200,000 – 299,999	No	1	6	2	1	5	5	1	
	Euros	216,973	1,381,754	454,240	257,824	1,158,050	1,279,562	206,807	
SFP > 300,000	No	1	2	2	3	1	2	0	
	Euros	455,520	1,401,739	747,661	1,120,069	493,242	713,202	0	
Euros removed by proposed progressive modulation		**34,165**	**123,260**	**54,899**	**57,611**	**62,018**	**70,406**	**4,329**	**406,629**
No. of businesses affected		**15**	**30**	**35**	**17**	**30**	**30**	**3**	**160**
Average cut per business		**2,294**	**4,109**	**1,568**	**3,389**	**2,067**	**2,347**	**1,443**	**2,541**

The estimate is that the extra modulation over and above planned voluntary modulation is just over 400,000 Euros (around 0.4% of the Aberdeenshire total SFP payment) from 160 businesses (around 2,500 Euros per business). Given that there are some very large SFP payments, a few businesses will receive a cut substantially in excess of this average. However, within Aberdeenshire, the above suggests that it is a small number of businesses in Buchan and the Garioch which will be most affected.

(ii) LFASS REFORM

EU proposals are based around 4 options, all of which move toward a clearer measure of disadvantage. It is widely expected that this might lead to the exclusion of parts of Aberdeenshire which are currently classed as LFA. How important is the LFASS for Aberdeenshire and which areas might be most vulnerable? Tables 77 and 78 show the scale and distribution of LFA payments to farm businesses in Aberdeenshire.

Table 77: Regional Distribution of LFASS 2007 within Aberdeenshire

	Number of claimants	Total paid in region £	Average per claimant £	Percentage of total Aberdeenshire LFA payout
Aberdeen	19	30,864	1,624	1%
Banff and Buchan	123	272,292	2,214	10%
Buchan	89	166,732	1,873	6%
Formartine	107	188,426	1,761	7%
Garioch	141	282,087	2,001	10%
Marr	418	1,384,522	3,312	52%
Kincardine and Mearns	120	362,875	3,024	14%
Total	1,017	2,687,798	2,643	

Overall Aberdeenshire LFA payments are very small in total (£2.6M) compared to SFP (over £72M). As described later, in Aberdeenshire LFASS is now much less important as a source of income than are agri-environment schemes.

Table 78: Aberdeenshire regional distribution of LFASS 2007 payments exceeding £5,000

	Number of businesses receiving > £5,000 (% of total LFASS recipients)	Percentage of total LFASS which is > £5,000
Aberdeen	0	0
Banff and Buchan	9 (7%)	39%
Buchan	7 (8%)	39%
Formartine	8 (7%)	32%
Garioch	12 (8%)	32%
Marr	82 (20%)	57%

	Number of businesses receiving > £5,000 (% of total LFASS recipients)	Percentage of total LFASS which is > £5,000
Kincardine and Mearns	17 (14%)	50%
Total Shire and City	135 (13%)	48%

Marr is the area which has the most to lose from a shift in LFASS payments. Based on 2007 figures this area receives more than half (52%) of Aberdeenshire total LFASS, has the highest average payments (£3,312) and has the biggest proportion of large LFASS payouts (20% are over £5,000). Other areas of Aberdeenshire, such as Buchan and Formartine, have a low reliance on LFASS, though even here there will be a few businesses with large LFASS allocations.

(iii) RURAL DEVELOPMENT PROGRAMME (RDP) SUPPORT

The general trend in the CAP has been a steady shift away from Pillar 1 support (the Single Farm Payment) and toward Pillar 2 rural development schemes (LFA, agri-environment, forestry, business development). However, as has been highlighted in many other studies, the level of EU funding available for Rural Development in the UK and especially Scotland is very low. Indeed Scotland has the lowest level in Europe at £7.40 per utilised agricultural hectare (2007 to 2013 EU allocation) compared to Austria, the most heavily supported, at £121.80. Even with 70% additional contribution from the Scottish Government, Scotland has the lowest rural development support per hectare in Europe. A large proportion of this is already allocated to the LFASS scheme.

What is the Aberdeenshire position?
A brief analysis of the expenditure on individual schemes (excluding Land Management Contracts) for 2006 and 2007 is presented below in Table 79.

Table 79: Individual RDP scheme expenditure for Aberdeenshire, excluding LMCs, 2006 and 2007.

	2006		2007	
	£	No.	£	No.
FBDS Business Plan	36,885	56	2,540	7
FBDS Investment	260,428	18	816,864	38
FBDS Diversification	326,566	23	215,778	23
Farm Woodland Scheme	171,071	50	169,225	54
SFGS Farmland Premium	247,488	50	296,266	61
Farm Woodland Premium Scheme	1,150,055	83	1,254,571	85
Habitats Scheme	9,088	5	8,553	5
Cairngorm Straths ESA	71,823	5	53,777	4
Countryside Premium Scheme	365,318	60	398,274	65
Rural Stewardship Scheme	4,797,346	107	4,344,559	103
Organic Aid Scheme	74,728	14	53,291	14
Organic Aid Conversion	246,851	18	520,078	20
Organic Aid Maintenance	56,046	11	71,647	14
Total	7,813,693	500	8,205,423	493

For 2006 we have also prepared a breakdown of total expenditure and number of claims under each administrative region: see Table 80 below.

Table 80: Breakdown of non-LMC RDP scheme claims by Aberdeenshire administrative region, 2006.

	2006			No. under each scheme;							
	Total £	**No.**	**Average**	FBDS Plan	FBDS Diversif	FBDS Invest	FWS	FWPS	SFGS FP	Organic	CPS/RSS/othe
Aberdeen	119,149	15	7,943	1			2	2		5	5
Banff and Buchan	1,321,279	61	21,660	6	3	1	7	13	5	2	24
Buchan	1,643,853	56	29,354	7	2	3	8	8	7	4	17
Formartine	1,785,460	85	21,005	11	5	5	9	12	9	10	24
Garioch	921,727	93	9,911	10	3	2	10	15	9	11	33
Marr	1,486,190	127	11,702	14	9	6	9	21	12	5	51
Kincardine and Mearns	534,364	62	8,619	7	1	1	5	11	8	6	23
Total				56	23	18	50	82	50	43	177

The main agri-environment scheme – the Rural Stewardship Scheme – accounts for at least half of expenditure under these schemes, and in Aberdeenshire it has double the importance of the LFASS in terms of total cash injected into farming in the area. This is likely an over-simplistic comparison given that some work must be done to receive the RSS income, and it also removes some land from production or restricts use, while in contrast very little cost is incurred to qualify for the LFASS. Also RSS/CPS income is received by a much smaller number of people, though the introduction of the simpler Land Management Contract menu scheme will have recently spread RDP funds much more widely.

The importance of woodland schemes in terms of total expenditure is perhaps surprising, but once again this has benefited a relatively small number of farmers. Indeed an important point from this analysis is the relatively small proportion of Aberdeenshire farms which are taking part and benefiting from all these schemes – around 500 in 2006 and 2007, which is very roughly a sixth of the region's IACS registered businesses.

Diversification grant scheme applications and awards are few. This supports the view that only a limited number of farms have the skills, specific resources, capital, drive and desire to establish a new business on the farm. The easiest way to supplement farm income, especially in what has been a very buoyant local economy, is to work off the farm. Reviews of diversification support, including that on the economic impact of the Rural Diversification Programme in the North and West Grampian Objective 5b area, have shown that a diverse range of rural services provide the largest group of applications. Very few are for new agricultural enterprises and these are mainly in the most lowground areas. Residential letting is popular close to main rural towns and Aberdeen, while tourist enterprises and accommodation applications are centred on traditional tourist areas like Deeside.

The distribution of claims (Table 80) in 2006 does not tell us much as it only analyses one year. The number of claims from each administrative region pretty well matches what would be expected given the number of SFP recipients in each, though Marr and Garioch are slightly more active than the other areas. Buchan has less activity than expected, but a high average payout.

Participation in schemes like the RSS has grown significantly over recent years, but an important issue for Aberdeenshire is how to get more people into these schemes, through the new integrated SRDP, and as a result learning how to operate in this new area of support.

7. SKILLS AND CAPABILITIES

(i) EDUCATION

Data on higher education are not as readily available as for Further Education (FE) and cannot be reconciled in a meaningful way for the local picture.

Higher education in agriculture has declined considerably at Aberdeen University, on a continuing trend (final year BSc Hons in 2007 12, 2008 is 4 and 2009 will be 5) and Aberdeen is now being wound down: the last straight Agriculture BSc student will finish this summer. This is a wider trend nationally: the nearest University to Aberdeenshire now offering a straight Agricultural Science degree is Newcastle.

SAC offer a BSc and BSc Honours validated through Glasgow University. These courses are articulated with their HND and FE provision, building around common modules. At present there are 4 students in the 3 year BSc, and 11 in the 4 year BSc Honours. SAC estimate that 40% of these students come from Aberdeenshire. There are increasing numbers of mature part-time students building a portfolio of modules. Those physically attending at Craibstone are predominantly local, but this is limited to 2 or 3 per year. There is also on-line provision available. SAC still offer a relatively wide range of agricultural education provision in the area with a fair degree of flexibility.

The overall trend in higher education in agriculture is downwards nationally and locally, and local provision is thought to be adequate for overall demand. Demand is thought to have stabilised but unlikely to increase.

Part-time and flexible provision is vitally important for the industry and for sustaining demand. This is a vicious circle; flexible provision is expensive (teaching out of hours, small numbers per lecturer, extra admin load if offering several means of accessing the same course), but it is the only way to attract some students.

Further Education comprises HND, HNC, NC and individual module credits.
Aberdeen College formerly offered a National Certificate in Agriculture, but no longer provides agricultural education or training. Aberdeen College have, however, significant numbers involved in Agricultural Engineering and machinery courses.

Using the SFC database, we have analysed student numbers in FE who come from Aberdeenshire or Aberdeen studying agriculture, horticulture and related subjects. **N.b. this does not include SAC.**

This shows that there are low numbers of FTE FE students originating from Aberdeenshire and Aberdeen city studying agriculture, horticulture and related subjects: about 1.5 to 2% of the Scottish total, 17 in total in 2007 out of 779. Aberdeen College accounts for around 50% of these and, as they do not now deliver Agriculture, one has to assume horticulture and associated subjects account for this.

The demand for agricultural engineering appears to be stronger. There have been over 20 FTE students from Aberdeenshire studying agricultural engineering over each of the last 3 years, with a further 5 or 6 from Aberdeen city. Almost all of these students attend Aberdeen College.

SAC provide an integrated programme of agricultural education building on a series of individual units which can be offered part-time which together comprise their Agriculture Year 1 programme. The approach is flexible and allows students to build up modules, use distance learning, study part-time, and take longer to complete a course.

Completion of Agriculture Year 1 provides a college diploma or acts as the foundation year for entry into HNC Agriculture/NC Agriculture, HND or BSc. This modular approach is therefore practically and production oriented, with the more scientific elements in the later years of the higher level courses. This full-time approach has mainly school leavers feeding in.

There are 12 students pursuing the college diploma this year, effectively the NC, and 75% of these are local.

There are 26 student pursuing Agriculture Year 1 as part of a higher level study; these are split 50/50 local and non-local.

There are currently 14 year 2 HND Agriculture students. 40% of these students are estimated to come from Aberdeenshire.

Total SAC agricultural student numbers (of all types on all courses) average between 60 and 70, down from an average of over 100 in the mid-1990s. At that time NC numbers were in the mid 20s and HND were in the mid 40s.

Short course, block release type and modular provision is thought to be vital to the industry in Aberdeenshire given the pressures on farm staff and family labour numbers. Local provision of this type is vital in providing the flexibility. The next nearest colleges offering this are Angus, Oatridge and Elmwood. SAC only teach 4 days per week to allow students a 3 day working weekend at home.

SAC highlight the importance of their Year 1 provision as a flexible feeder into other training and education. They claim it is used as a loss leader at the moment. There is an issue of maintaining the critical mass to sustain the organisational infrastructure required for the current provision; this may become a threat. The future of Craibstone is thought to be secure until 2014, but if there is doubt over the long term future, then demand for the longer higher level courses will inevitably drop.

(ii) TRAINING

Legislation and certification, current and emerging, is far and away the major driver of demand for training in agriculture, and demand is increasing. Livestock transport certification is the big issue at the moment. Almost all certificated training is driven by legislation. Overall demand is strongest amongst the young, but for certification in particular. There are particular training demands and issues associated with migrant workers, the nature of the work they are involved in, and challenges of certification and language.

Demand from other non-farm rural sectors for skills is a critical issue. On the land-based side, forestry demand is very strong at the moment. The demand from other sectors for skills also means demand for training which is helping to ensure provision for agriculture which would not otherwise be there.

Provision in Aberdeenshire is thought to be strong (by the main providers). However, there appears to be some tension between the main providers. We did not see much evidence in the consultation process of a coordinated or systematic approach to assessing needs and to delivering. There is an opportunity (and willingness) for LANTRA to take a strategic lead here.

Ringlink is the machinery ring active in the area, and has a dedicated labour supply and training function. They deliver LANTRA products, operate a brokerage role and will deliver training anywhere in the UK. Ringlink appear to have excellent training intelligence which could be of considerable value to the sector. Their wider role and coverage means they have greater infrastructure and ability to deliver than would otherwise be the case. They are the largest single provider, with approximately 60% of the farm and related training market; other providers are relatively small-scale.

Ringlink took on the NPTC assessment centre role in order to be able to organise assessments. This has covered a gap and has resulted in increased uptake. They undertake limited external assessments, mainly for their providers. They actively seek to work in partnership with other providers of training, e.g. SAC, but this has not always been successful. The biggest issue Ringlink identify at the moment is the demand from other (non-farm) sectors for skills. Indeed they are heavily dependent on demand from other sectors. 75% of training delivered is non-agricultural, with a very significant downward shift evident since 2001. Increase in refresher training is up 15% on the year, driven by HSE.

Ringlink have excellent training records, with a bespoke info management system which allows them to capture details of individuals, courses, organisations and assessments. They have annual reports on all these. Nevertheless, analysis by sector is difficult.

Forestry sector demand is very high at present, e.g. migrants working in the sector and requiring training and certificates e.g. chainsaw operation. In fact, migrant worker demand is high overall particularly in forestry and soft fruit pesticides. Language is a problem.

The availability of non-farm work is also helping drive demand for skills e.g. in landscaping. Demand in this sub-sector is mainly among the young, and in this group legislative training is even stronger. It appears that training is a higher priority for family members who are less likely to leave the farm business after training than are employees.

As a specific example, Ringlink are delivering training in the Cairngorm National Park with ESF funding, building on a short course package which was initiated with Balmoral, Ballogie and Invercauld estates.

There is no real geographical pattern to training provision other than by enterprise (type and size, no. of people) with more uptake in the arable areas where there is soft fruit and vegetables. Very little livestock training is done.

SAC are the other major provider of training in the area although much of this is delivered by other providers with SAC acting as a broker. The main plank of provision is legislative training; sprayer operator, fork lift truck, trailer towing, chainsaw, livestock transport (growing) and brushcutters. Also a few specialist non-legislative courses such as sheep shearing and tattie roguing. Demand for SAC training is mainly local. SAC deliver business training to some suppliers and processors, e.g. slaughterhouses.

Demand for certificated training is increasing and will continue to do so in SACs view. Environmental training is also on the increase. SAC monitors training requirements through its industrial links.

(iii) EXTENSION AND ADVICE

Advisory and consultancy services to farming are provided in Aberdeenshire by SAC (Farm Business Services offices in Stonehaven, Thainstone and Turriff, with part of NW Aberdeenshire served by the Elgin office), and a wide range of private consultants including Buchan Agricultural Consultants, Allathan Associates, Hayes MacFarlane, Ian Dalley, Watson Bell, Advanced Agricultural Services and many more including the Land Agencies such as Smiths Gore, Strutt and Parker, and Savills. Aberdeenshire has always had an unusually high representation of independent consultants – much more than most other regions of Scotland, except perhaps the Lothians and Borders.

Over the last 6 years national organisations (Scottish Enterprise Rural Group, SGRPID, QMS) have launched a range of Scotland-wide initiatives, largely stimulated by decoupling of subsidies and the perceived decline of CAP support and with an eye to the future of supplies to Scotland's food sector. All aim to speed up the pace of technical improvement and improve business skills and market awareness. All are represented in Aberdeenshire.

<u>Farming for the Future:</u> This industry-led programme originated as a joint NFUS SAC initiative, making use of ESF grant funding available through SAC and is now being rolled out more widely by NFUS. The programme delivers all day farm based practical events each of which covers a specific theme. Each event makes extensive use of practical inputs from practitioners within the industry. Events are promoted to the NFUS membership in the area, in excess of 1,400 members,

and normally attract an attendance of 70 to 80 individuals. These appear to have some success in involving the young. Participation is free of charge, with a small charge being made for catering. Recent topics covered include lamb marketing and arable farming.

Planning to Succeed: Supported by Scottish Enterprise, this programme is aimed at improving the growth of Scotland's agricultural businesses by improving the overall level of business management expertise of farm managers and owners. The programme involves groups of up to 15 eligible farmers supported by a facilitator who together design and complete a dedicated group action plan and benchmarking model over the year. Those involved are required to commit to attending at least 75% of meetings. At present, there are ten such groups in Lowland Scotland. The Aberdeenshire group is all female and has nine members at present with additions pending. The majority of the group is livestock based, a mixture of Less Favoured Area and non-LFA with beef and sheep being the main enterprises. The businesses involved have very few employed staff (1.25 FTEs on average), which can create attendance problems. A high proportion of the group actually have off-farm employment or other businesses. The group have covered skills analysis, benchmarking and learning journey elements of the programme. They rated all elements positively, external skills analysis being unanimously highly rated after some initial scepticism.

Monitor Farms: The Monitor Farm concept is based on a successful New Zealand self help model. QMS is the principal funder in the livestock Monitor Farms Programme, with eleven in Scotland as a whole. Each project helps a local group mainly of farmers, the farm's vet, and other agricultural professionals supported by a local facilitator to share information and test knowledge to improve the performance and profitability of a typical local commercial farm over a three year period. Lessons or knowledge transferred is then applied to the participants' businesses. Two of these Monitor Farms are in Aberdeenshire and are supported by QMS, Scottish Government and Scottish Enterprise. There are six meetings of each group each year, with an average of around 30 farmers attending each. A typical meeting format is for the group to meet at the farm, review what's happened since last meeting, and look at an item of interest for that day, followed by lunch then a group session and feedback/discussion. Outputs are widely disseminated and open days conducted to facilitate technology transfer. The programme is thought to offer wider benefits in strengthening supply chain linkages, communication and feedback and in creating local networks.

The Cairngorms Monitor Farm (A & J Adams, Eastfield, Ballater) has been operating since July 2007 and attracts further support from the Cairngorm National Park Authority. It targets the upland farming sector drawing farmers from Upper Deeside and Strathdon, this involves a Community Group of approximately 80. The new Buchan Monitor Farm (Patrick Dickson, Acrestrype, Turriff) is linked to a large cattle finishing enterprise (Thomastown, Auchterless) to add an extra local dimension to the programme. Launched in early June 08 with around 70 members the group draws farmers from throughout the lowland NE. This is the second Buchan Monitor Farm – first was at Strichen and finished its 3 year run this spring (2008). There is also an Arable Monitor Farm (Messrs Black, Backboath) at Forfar which draws some farmers from south Aberdeenshire.

Profit without Subsidy: Supported by Scottish Enterprise, SAC and SAOS collaborated to deliver a series of Profit without Subsidy Workshops throughout the SE area. Profit Without Subsidy is an innovative planning tool developed by SAC, SAOS and Peter Cook to help farm businesses develop new business strategies in light of the introduction of the single farm payment. It aims to help farm businesses to identify and focus on their return on capital invested, and to ensure that business potential is maximised. The workshops encourage farmers to develop their profitability by focusing on seven key principles for maintaining a competitive and sustainable farm business.

Rural Leadership: Rural Leadership operated as a pilot programme in the Scottish Borders and Dumfries and Galloway before being rolled out more widely. In 2007 it was delivered by SAC on behalf of Scottish Enterprise. The 2007 programme supported 60 individuals from throughout rural Scotland, many of them from agriculture, to progress through its Rural Leadership Programme. This involved days of activity designed to develop the skills of potential rural leaders to lead more effective organisations, improve the professionalism of Rural Scotland and enhance rural and agricultural business representation in Rural Policy making. It is intended to run this programme again in 2008 in four regions of Scotland and this will shortly be going out to tender.

Succession Planning: LANTRA collaborated with NFUS and the SAYFC to develop and pilot the 'Developing the next generation of business leaders', a succession planning initiative for family farms. This involved a series of practical business planning workshops provided by SAC and New Edge Management together with a land and business review. From these, participants produced training and development plans aimed at supporting a sustainable and competitive future for their businesses. Several families also had one-to-one mentoring sessions to support the process, and ensure the changes being put in place would be for the long term. This is now being further developed jointly with SAC as a Succession Planning Initiative for future delivery under the SRDP.

(iv) MAIN NEEDS IDENTIFIED FROM INTERVIEWS

- The area appears relatively well provided for in terms of agricultural education. Most students appear to be choosing to study locally, but the ability to do so is a fragile and critical asset.

- Addressing shrinking numbers of farm staff and restricted time / resource for training/education.

- Ensuring locally accessible and flexible provision for training and education. This is a very multi-dimensional problem and there may be a need for a planned and coordinated approach here.

- Loss of small and part time units with expansion of lifestyle units.

- Competition for skills from other more attractive industries, construction, offshore etc.

- Specific needs of migrant labour, especially in relation to legislative training.

- Securing and maintaining industry involvement is an increasing priority for NFUS and Lantra. It is important that this recognises and includes the self-employed as well as employers.

- Lantra have the potential and remit to play a leading strategic role here or to develop targeted pilot initiatives, but require partnership with the industry.

(v) WORKSHOP FEEDBACK

Part of the process of research for the labour and skills section was a small workshop, held at Gordon House in Inverurie, at which a mix of farmers, training providers and representative organisations, facilitated by John Grieve, shared views on the labour and skills issues in Aberdeenshire. The following is a summary of their feedback.

The problem

- In the view of the workshop participants, qualitative and skills considerations are of less immediate importance than sheer availability of people and making the work attractive. All comes back to profitability and attractiveness of traditional farm work.
- May see change with construction downturn
- Need modern ways of working to attract people, but difficult for NE livestock sector to make changes
- Image issue; Agriculture is not seen as the high tech sector it truly has become (high tech machines, breeding technology, detailed rations, computerised recording)
- With this background of attractive wages elsewhere, it is cheaper/easier to deploy capital than employ labour, hence mechanisation, buildings, etc. However, this can only go so far in livestock systems.
- Migrant labour been a short term fix, not a long term solution as they now trade up to better jobs and/or return home
- Decline of local NE education centres which were once a source of supply (but, Oatridge, Barony seem to be doing better – why?)
- The participants felt there were plenty of interested young folk – getting them to commit and stay is the problem
- The shortage of labour constrains the ability of businesses to release staff for training. It is thought that this impacts on the young particularly.

Training and Skills Provision

- Farmers often cannot see benefit of training to their businesses. Partly because whole training structure (Ringlink, SAC) is geared toward statutory/ legislative compliance, not about developing people and businesses. Need to shift to workforce development and sell it.
- Also there is no true market in training – it is all subsidy driven. Training organisations just follow the subsidy. Therefore no evaluation of business improvement from training, just compliance with regulations.
- The lack of flexibility in the industry's ability to access training puts the onus on the providers to offer sufficiently flexible or appropriate provision. This demands a relatively high level of infrastructure which may be difficult to maintain given current uptake and pressures.

Solutions

- Need to change the shape of farming businesses and job profiles to attract people. Cannot expect to provide a 1960s work environment and attract good people who have 21st century alternatives.
- More innovative ways of contracting staff are required, work patterns and employee expectations have changed e.g. annualised hours so that a worker can work very long hours at calving or harvest, but then be free for parts of the year to work elsewhere may suit both business and employee.
- There is a job to be done in promoting the industry – part of the food sector, technical skills, healthy, lifestyle. Innovative or flexible approaches to employment may enhance this.
- Need for some modern form of apprenticeship structure and development of staff in the job, this should be targeted at the range of entrants which includes a more mature group.
- Lack of leadership – need to get all training/ education organisations working together and then industry would come in and back it and initiatives. Industry involvement is essential strengthening relevance and buy in. Real bit of work to be done here.

(vi) RECOMMENDATIONS

1. Increased focus and involvement by the industry and supporting agencies in workforce development. Establish a Workforce Development Action Forum led for example by Lantra (possibly based on NESAAG) as a means of progressing this and the associated actions and solutions identified above. Gathering intelligence and undertaking further targeted research as required. (Lantra have indicated that they would be prepared to lead / coordinate such an initiative).

2. Investigate the development of an apprenticeship/workforce development approach using either one of the coops, NFU or some other collective grouping.

3. Explore workforce issues and needs together with potential and actual solutions through the Monitor Farm vehicle.

4. Explore/evaluate the business improvement results and other cost benefit aspects of training through the Monitor Farms programme and other targeted activity.

8. CASE STUDIES

(i) PROCESSING SECTOR CASE

Robert and Ethel Chapman, Farmlay, Strichen

From a small-scale farm enterprise, Farmlay has evolved to become a successful Scottish food supplier winning numerous awards along the way. What is even more remarkable is that egg production operates in the unsupported agricultural sector. So how can a business in the heart of Buchan, miles from the main market, become so successful in the fiercely competitive food market? And what are the lessons for other businesses?

Background

Robert's parents had always kept laying hens at Cockmuir, near Strichen (first caged shed in 1963) with the eggs sold to the local egg packing station. In the early 1970's the egg market was suffering from over-supply so they decided to market their eggs direct to local businesses – this marked the first step towards getting closer to the market. This proved successful but then gradually small local shops were closing, prompting another major change of direction. To get the volume required for growth, the business next turned to a wholesaler, who in turn supplied Spar shops and Brakes food service. This new market actually resulted in a lower egg price but at least it was a growing market.

Up until 1998, the business had always been run as a family partnership, with Robert and brother Peter being the main partners. However, they took the brave step to split the partnership to allow each to pursue their own interests. At the time it was a major decision but as it turned out it was the catalyst to free up each other's ambition. Both brothers now operate substantial businesses.

Breaking into supplying supermarkets

As the wholesale business expanded, eggs were increasingly delivered into the north of England by artic. In a price conscious market, it was clear being so remote from the wholesale customers was a disadvantage. This forced the next major change.

It was clear to Robert they had to redefine the business - Farmlay is a Scottish business which needed to find Scottish markets. The success of Glenrath Farms had provided a good template, so the decision was taken to try and secure a supply contract with a major supermarket. This move also fitted in well with the trend towards sourcing local supplies, from a family business, with a focus on quality – a perfect fit for the aspirations of Farmlay. Eventually a contract was secured to supply Morrison's which was expanding in Scotland.

Importance of Management and Investment.

To realise their strategy and achieve their ambition, the Chapmans recognised the need for investment. Robert sees continued investment as crucial to stay ahead of competition and improve efficiency. Farmlay have undertaken major investment in poultry houses, modernising the grading line, office facilities, and general infrastructure. He readily acknowledges the good relationship he enjoys with his bank. Operating in the unsupported sector is hard but, as Robert says, it forces you to become a better businessman. The Chapmans constantly strive to be in the top 10% of producers and know that sound business principles is the only way to succeed. Cost reduction is a major preoccupation. For example, 60% of the cost of egg production is feed. Previously they purchased all their feed, but now through utilising a mobile mill service they mix their own rations (200t per week). As a result, hen performance has improved, diet quality is more consistent, and importantly feed costs are reduced.

Current Business

Today the business employs over 40 staff and has a turnover of £8M representing a doubling of activity over a 5-year period. It also includes operating their own transport fleet to handle all the logistics in the business. The business, however, can't afford to stand still, and Farmlay is actively looking to expand its operations by encouraging livestock farmers to join them by becoming a contract producer. Already they have 13 contract producers spread from Caithness to Ayrshire, all of whose eggs are packed at Cockmuir. Now Farmlay want to expand their egg supply and market reach through a drive to recruit more contract producers.

The Morrison's contract provides the major market for their eggs. However, Farmlay still supply a range of markets including Spar, wholesalers, and the food service sector. At present 60% of sales are for conventional eggs, 35% free range and 5% organic.

Relations with staff

Being a family business and working closely with their staff on a daily basis means that the Chapmans have developed strong relationships with their staff, leading to mutual respect and loyalty. Migrant workers comprise 20% of the labour force and special effort is taken to make them feel welcome to ensure they settle happily. Simple things like housing, making doctors appointments, and running them to the airport all make a difference. Personal touch is important:

for example, Robert was currently taking time to help an Estonian member of staff source and purchase a second-hand car - all on top of an already hectic schedule.

The future.

The Chapmans' two children are now both working in the business and given increasing responsibility. Son, Ian (23) manages the 900 acre farming business while Jennifer, a trained accountant, has recently returned to join the business. Robert says he plans to take things easier in 5-10 years time and pass the management on to the next generation. One suspects, however, extracting himself from the cut and thrust of daily business will not be easy.

Lessons from case (success factors)

- The key; ambition and drive of the entrepreneur
- Importance of family support, particularly spouse
- Ability to change and develop successful strategies with changing markets
- Exploiting opportunities when they appear
- Focus on quality whilst also looking to drive down costs
- Recognising the need for and value of investment
- Importance of staff relations and their development
- Succession planning for the future

(ii) FARM CASE

Messrs Patrick Dickson, Acrestrype, Fyvie, Aberdeenshire.

Description

This business is operated by a father and son team, Patrick senior and junior, farming 450 tenanted acres over three units: Acrestrype, North Camalynes and Birkenhills. As is common in Aberdeenshire, part of the unit is classified LFA (North Camalynes) while the rest is non-LFA. Camalynes has relatively heavy and stony soils and carries a simple grass and spring barley rotation. Beef cows are housed and sheep lambed and summered at this unit. Acrestrype and Birkenhills comprise a separate block of land 1 mile up the Turriff road. These units are in an arable rotation of winter barley/ oilseed rape/ winter wheat/ spring barley. Grass is confined to wet haugh and brae fields. Finishing bulls and over-wintering heifers are housed at Acrestrype.

Patrick senior started farming at Acrestrype, with the other two tenancies (all on the same estate) being added over the years. For a time, after Patrick junior had completed his OND at SAC Aberdeen and returned home, Patrick senior worked part-time for Grampian Country Pigs to supplement income from the farm, but when Birkenhills was added to the business this allowed both father and son to work at home.

The **cattle enterprise** is based on 76 spring calving beef cows now operating as a closed herd with hi-health status. The herd is Johnes and BVD accredited. There is a copper/ cobalt trace element problem across the farm, so the cows receive a copper bolus pre-calving. Males are left entire and finished intensively on slats. Heifers are overwintered for finishing the following year. Winter feeding for the cows is based on silage in early winter and straw later (some ammonia treated). For finishing cattle the ration is based on silage and barley.

The **sheep flock** comprises approximately 220 cross bred ewes and 40 hoggs with all lambs finished (off grass, stubble neeps and hoppers last year).

Approximate **crop areas** for 2008 are as follows;

	Acres
Spring barley	114
Winter barley	77
Winter oilseed rape	15
Winter wheat	46
Grass	174
Arable silage (chicory/red clover mix)	14
Environmental schemes and rough grazing	7

Most grain is sold for feed at harvest, but malting varieties are being tried this year. Surplus straw is sold in the bout. 100t of barley is stored in a bin for feeding.

Contractors are used for silage chopping, baling, bale wrapping, spraying, combining and some drilling. Casual labour is employed at lambing.

Trends over the study period

The major change in the beef herd has been the shift to hi-health status. Johnes is a major problem across Scotland. The Dicksons started with a fairly clean herd and regular testing under the hi-health programme has allowed them to confirm their clean status. The herd has been closed so all replacements are homebred and only accredited bulls are purchased. Cow breed has also been changed. Like many Aberdeenshire herds it originally consisted of dairy crosses, but is now moving to a Simmental x Luing cross. The Dicksons are using a Luing bull for the first time this year. The aim is to have a smaller cow which needs less winter feed, lives longer, calves easier and suffers less in bad weather. Following this change in breed and hi-health status the Dicksons aim to start selling breeding heifers this year. The SAC Livestock Record Programme is used to record the performance of calves from each cow and this is being used as an aid in selecting cows for breeding replacements. Calves are weighed at weaning, the temperament of cows is noted, coloured tags are used to colour code heifers to their sire and all calves when tagged get a letter representing the sire written on the tag. Following decoupling the herd has been reduced slightly from its 90 head peak.

Developments in the sheep flock have followed the same pattern. Like many in the area they used Greyface ewes, then following a Jagskiete outbreak shifted to Shetland Cheviots put to Suffolk rams. To facilitate a shift to a closed flock they started marking ewes which always lambed unaided and purchased 3 Lleyn rams which suited a self contained flock and brought in good mothering ability and prolificacy. A Shetland tup is used on ewe lambs to ensure an easy first lambing. This year an Easycare wool shedding ram was used with the aim of testing out the breed with an eye to a shift to an all wool shedding flock. Ewes lamb outside during the day and come inside at night. Newly lambed ewes are individually penned before turnout. Ewes which lamb easily and whose lambs suckle quickly are recorded. Any which need feet treatment have a notch taken out of their tag and if still a problem the next year, they get a red tag. Ewes are also recorded against the ram used. Lambs are weighed at weaning. The whole thrust of this effort is to breed a flock which has fewer problems related to bad feet and wool, and to reduce the amount of work required throughout the year, especially at lambing.

The mix of cattle and sheep provides a clean grazing system so lambs are not held back by worm burdens. To finish more lambs before Christmas and hence reduce reliance on expensive concentrates, the Dicksons are experimenting with chickory/ red clover mixes and stubble turnips.
On the cropping side variety blends have been successfully introduced and seem to show some yield advantage. Given the lack of on-farm grain storage (except their 100t feed bin) the Dicksons have taken storage at Aberdeen Grain Co-op for malting barley, which itself is a new crop for the farm as previously only feed varieties were grown.

Over the study period the Dicksons have had a Rural Stewardship Scheme and have taken up Land Management Contract options.

A straw-bedded cattle court was built for the beef cows at Camalynes during the study period and smaller investments in handling and sheep weighing have also been made. Despite low prices, the business has generated profits which more than covered drawings throughout recent years and a substantial improvement is expected for 2008. However, the farm does rely on its Single Farm Payment. Throughout the post-decoupling 2005 to 2007 period, there would have been no profit without it.

The Future

The business recently became the Buchan Monitor Farm and the partners are keen to continue improving the performance of each enterprise. The major challenge is how to cope with a reduction in the labour supply as Patrick senior gets older and potentially retires. Will the farm need an employee? Will the enterprise mix need to change and should the farm invest in labour saving machinery and buildings?

Conclusions

- This is a very typical Aberdeenshire family farming business with a mix of crops and livestock and a range of land quality spread over several units. Its reactions to the pressures of recent years mirror the position of Aberdeenshire as a whole.
- Despite low prices the business has maintained a stable mix of enterprises, as has Aberdeenshire as a whole. However, the freedom created by decoupling has allowed a small reduction in the beef herd as the farm sorts out its health and breeding issues.
- The synergy between enterprises in a mixed system (clean grazing, surplus straw for feed and bedding, feed grains, catch crops after cereals, grain storage in courts, fertility gains from a grass break, muck for arable land) and the constraints of land quality (wetter, steeper and stonier areas of land which cannot be cropped profitably) are a major brake on change in this farm and to some extent throughout Aberdeenshire.
- What is changing, however, is how the enterprises are operated. There is much greater use of contractors. Breeding is changing fast to suit lower labour systems. Underlying health problems are being sorted out. Livestock and crop systems are being adjusted to meet the requirements of premium/ niche markets (in this case malting barley, breeding heifers, grain storage for better timing of sales) and to get the benefit of marketing expertise.
- Labour is an issue in inherently complex mixed farming systems. There is not an employee issue on this farm, but how Patrick junior manages the business as Patrick senior gets older is a major challenge. In livestock systems many tasks cannot be done by one person (at present at least).
- The big issue in the background for this business and most farms in Aberdeenshire is reliance on the Single Farm Payment. Through environmental schemes the Dicksons have "clawed back" some of the SFP removed by modulation and they are working on improving the margins of all their enterprises, but the profitability of the current system would be severely disrupted by any sharp reduction in SFP and this in turn would lead to a much more radical change in livestock numbers and crop acres.

(iii) DIVERSIFIED FARM CASE

Farm Description

This is a 300 acre owner occupied farm near to Aberdeen on relatively stony sandy loam soils. The farm is in one block. Fields are well fenced, but relatively small. The business operates a rotation of grass and barley in equal proportions and grows a small area of swedes (4 acres) for the sheep flock.

The main enterprise is cattle finishing, with stores bought throughout the year mainly for winter finishing. There is housing for 160 head. Feeding is based on homegrown silage and barley. In addition there is a 150 head Suffolk cross early lambing ewe flock. The aim is to finish lambs by spring/early summer to catch the high prices before the seasonal slump in the second half of the summer. The sheep in this system consume a significant quantity of concentrate – mainly based on homegrown barley.

Labour consists of the farmer and his spouse plus their son. Father and son work the farm and do some agricultural contracting in the area while administration and the accounts are looked after by the farmer’s wife.

The farm is profitable, but will struggle to make an adequate living for two families.

The Diversification

A building used for machinery storage, situated some distance from the main steading, adjacent to a 13 acre field and lying next to a main road, has been converted to stabling. The farm is close to a major settlement with a demand for do-it-yourself livery. There is a large horse population in the area and an affluent populace many of whom have young families.

The plan required the conversion of the building including installing services (water, electricity, drainage) and sub-division into individual loose boxes, feed and tack rooms, the installation of a ménage and fencing and the purchase of a machine to collect dung from pastures in the summer. Marketing and the management of the facilities are in the hands of a manager who deals with all customers and day to day operations such as vets and farrier as well as liaison with the farmer including all financial transactions. Her management fee is collected separately from clients.

Investment

Installation of 13 horse boxes	£3500
Connections to services, electricity, water and drains	£700
Construction and lighting of ménage	£4000
Paddocks, fences and gates, waterings	£900
Site works; screens, dung heap and hard standings for vehicles	£400
Machine for collecting dung	£1500
Total	**£11,000**

Reorganisation of the farm

No changes were made to the cropping and stocking as an additional 13 acres of grass was obtained by means of seasonal grass lets.

Machinery originally stored in the building was moved to a straw shed and some 300 bales of straw stored outside, having been single-wrapped in polythene using the wrapper already on the farm.

The straw and haylage specially prepared for the horses and sold to the DIY users result in a similar quantity of forage being purchased for the cattle and sheep.

Budget

Additional Revenue per annum

13 horses @ £30 per week at 70% occupancy rate per annum £14196

Margin on 40 bales of haylage @ £8/bale £320
Margin on 40 bales of straw @ £5/bale £200

Total £14716

Additional Costs per annum

13 acres of rented seasonal grass @ £110 per acre £1430

Wrapping straw 300 bales @ £1.50 /bale	£450	
Electricity and water charges	£400	
Labour and repairs, collection of manure in the summer	£1800	
Extra transport and travel for supervision for cattle away at grass	£300	
Annual capital chare at 25% depreciation per annum	£2750	
Total		£7130
Net Gain per annum to contribute to overheads business rates		£7,586
Net Gain per annum per acre (13 acres)		**£583**

Comments

This diversification is in itself a very small business, but it gives an important boost to profitability, and gives a very good return on the extra capital invested and on the land utilised.

The investment was probably low in view of the availability of suitably located existing buildings and the decision to wrap straw and store it outside.

The returns are particularly sensitive to the occupancy rate.

The sub-contracted manager is a critical part of the success of this venture. She ensured that the facilities were well used from the outset and has credibility with the horse owners. She also ensures that the disturbance to the running of the farm is minimised.

This case throws up many of the features of diversification in Aberdeenshire in general; there are opportunities within the buoyant local economy, some land has a low opportunity cost, existing resources such as buildings and their suitability or otherwise for alternative uses are critical, finding a way to adjust the existing farming business is important, cashflows of small farms often cannot support large capital investments, grant support is sometimes avoided because it forces higher building specifications and more legislative “interference”, farmers themselves often do not have appropriate skills so finding a family member or another person who does is important, and location can be critical.

PART 2 – THE MEDIUM-TERM OUTLOOK

1. FARM MODELS

(i) SUMMARY

We have selected 5 farms typical of the area; a finisher, a LFA cattle and sheep breeding unit, a cropping farm, a dairy and a pig unit. These are not selected as typical or as averages, but simply as examples so that we can see what business environment and support policy changes mean to real businesses in terms of profitability. This helps us to model a picture of what might happen to the industry in the future rather than relying on data which is based on the past and which is now very much out of date.

For each business we have provided a full description, historic profits for the 2006 and 2007 crop years, a detailed forward budget for the current 2008 year, and a “guesstimate” of profit for 2009 given current knowledge on costs and output prices.

Table 81: Model Farms Net Profit (£) Summary

	2006 actual	**2007 actual**	**2008 budget**	**2009 guesstimate**
LFA cattle and sheep	23,000	31,000	22,500	9,700
Finisher	30,000	57,000	43,500	22,900
Cropping	9,600	32,900	67,800	42,300
Pigs	(23,000)	(140,000)	(153,100)	(3,000)
Dairy	25,500	50,000	74,500	49,000

These Net Profit figures are the margin left after the deduction of all costs including charges for property and machinery depreciation. From this, the farm family will need to draw a living, pay any tax, make any provision for debt repayment and make any new investment over and above the sum covered by depreciation.

Conclusions

- Up to 2006 most of the farms had been making mediocre profits which covered drawings, but which did not allow major reinvestment in the business. Very poor cereal prices hit the cropping farm especially hard, but kept livestock unit margins up.

- In 2007 the sudden rise in cereal prices only gave the cropping unit a moderate lift because he was tied into contracts which specified a price which looked good in 2006 (for example £120/t for malting barley), but which were well below harvest 2007 free market prices which hit £200/t. The finisher, who also grows some surplus grain for sale, actually benefited more as he was not tied to contracts and also bought store cattle at reasonable prices. The LFA breeding farm benefited from a rise in cattle prices toward the end of the year, but started to feel the effect of higher purchased feed costs. The pig unit was hammered by low pig prices and a sudden and sharp rise in feed grain costs. Given the sheer number of pigs being reared, this resulted in a major Net Loss. The fortunes of the dairy unit reflect the improvement in the milk price since 2006 and the fact that it grows much of its own concentrate feed and sells surplus grain.

- For 2008 the cropping farm is at last benefiting from attractively priced forward contracts, especially for malting barley. Fertiliser was purchased well in advance avoiding much of the later rise in cost. The finisher has some benefit from higher grain prices and good finished cattle prices, but what could have been a tremendously profitable year is dampened by the rising cost of purchased supplements, high fuel and silage making costs and rocketing fertiliser prices. The LFA business has no grain market benefit and is seeing all input costs rise: feed, fuel, fertiliser, transport. The pig unit is in a very serious position as the pig price is only improving slowly while the full impact of feed grain and soya price rises is having its effect – he cannot continue much longer with this scale of loss.

- Our guesstimate for 2009 is a deteriorating situation for everyone except the pig unit. Fuel, fertiliser and all oil related input costs are continuing to rise while grain prices are easing back a little. Many businesses need to increase their overdraft facilities to secure fertiliser earlier (when at least it is available) and because the ranking up of input costs has pushed up working capital requirements. The easing back of feed grain prices and a long awaited response in the pig market to reduced supply gets the pig unit almost to break-even. The beef cattle businesses are now potentially in a worse profit position than they were in 2006, though much depends on store and finished cattle prices.

(ii) INDIVIDUAL FARM DESCRIPTIONS AND BUDGETS

(a) *Cropping Farm*

Farm Description

History and Area:

The farm is located in a predominantly arable area within lowland Aberdeenshire. The land is free draining sandy loam and loam, 70m above sea level and generally level. Classified as grade 3.1 land, this is an excellent arable farm, capable of growing above average yields of all crops common to the area. In previous years there have been ewes and feeding cattle on the farm, but all the grass has been ploughed this year and no livestock will be carried. More recently pigs and cattle have been fed on a contract basis but this will also not happen this year.

Cropping:

There are 132ha owned land, with a further 17ha rented from a neighbour, all of which is arable but with some entered into an RSS scheme. The cropping plan for harvest 2008 is as follows:

Wheat	12 ha
W. Barley	27 ha
S. Barley	75 ha
W Oilseed Rape	14 ha
Let for potatoes	11 ha
RSS land	6 ha

All spring barley has achieved malting in the past. All crop moves off farm at or soon after harvest due to a shortage of suitable long-term storage. Home-saved seed is used and a plough-based cultivation system operated.

Labour:

The farmer employs no full-time labour but uses casual labour at busy times. His wife is responsible for book-keeping.

Machinery:

Machinery is kept up-to-date and is well maintained. Contractors are used for sowing the crops, OSR swathing and lime spreading. Some contract work is also carried out for neighbouring farms, particularly combining.

Buildings:

There are cattle courts capable of housing 200 store cattle. On-floor grain storage is available but it is not up to the standard required for long-term storage. There is also a Dutch barn for straw storage and various other general purpose sheds. Although none of the buildings have been erected in the past 20 years or more, they are in a good state of repair.

Historical Performance

Livestock numbers have been gradually reduced over the years, replaced to some extent with contract feeding of pigs or wintering of cattle. This year however the last of the grass has been ploughed and an all arable system adopted. Profits have been made consistently in recent years, but these have not covered drawings until last year when higher grain prices increased farm output and a profit of £32,900 was generated. Profit in 2006 was only £9,600. Although borrowings are not high, they have been increasing gradually, again until last year when a small reduction took place.

Harvest 2008 Budget

Profit & Loss Account:

Costs		**Gross Output**	
Variable Costs		**Crops**	
Fertiliser & Lime	32800	Wheat	28700
Seed	3600	Feed Barley	10900
Sprays & Crop Exp	14500	Malting Barley	77400
Casual Labour	7600	W Oilseed Rape	17900
Contracting	8000	Potato Let	5500
		Crop Valuations	17100
	66500		157500
Fixed Costs		**Other**	
Machinery Expenses	8300	R.S.S. scheme	5200

Costs		Gross Output	
Fuel & Electricity	20500	L.M.C. scheme	3400
Rent & Rates	4400	Contracting	11000
Insurance	5700	Miscellaneous	500
Property Expenses	2000		20100
Miscellaneous	4600		
Interest	9800	**Single Farm Payment**	32800
Depreciation	20800		
	76100		
Total Costs	142600	Total Output	210400
Net Profit	**67800**		

Assumptions:

Wheat sales – 8t/ha x £135/t

S Barley sales – 5.5t/ha: 120t x £185, 260t x £190, 32t x £180

W Barley sales – 8t/ha x £115

Oilseed Rape sales – 3.7t/ha x £350/t

SFP Exchange Rate – 1 euro = 76p

Nitrogen fertiliser - £325/t

Compound fertiliser – average £464/t

Fuel cost - +25% from 2007

Closing crop valuations take account of increased input costs

Balance Sheet:

Liabilities	This Year	Next Year	Assets	This Year	Next Year
Total Borrowings	167700	137900	Debtors	11600	14500
Creditors	2300	2900	Valuations	35900	53000
			Machinery	134500	117800
			Investments	0	0
Net Worth	**1512000**	**1544500**	Heritable	1500000	1500000
Total Liabilities	1682000	1685300	Total Assets	1682000	1685300

Key Points:

Fertiliser cost up £13,900 on 2007 (74%)

Fuel & Electricity cost up £4,700 on 2007 (30%)

Cropping area increase of 27ha on 2007

Crop Output increased by £43,700 on 2007 (48%)

Profit up £34,900 on 2007

Machinery investment down £16,700 with no purchases planned in 2008

Borrowings reduced by £29,800 during the 2008 budget year

2009 guesstimate

Assumptions:

Crop prices as per current (late July 08) forward estimates

Cattle/sheep/milk assume same as now

Pig price assume only 140p/kg

Feed prices assume same as now

Nitrogen £370/t

Compound fertiliser average £580/t

Fuel/electric +20%

Contracting/Sprays +10%

Labour +4%

Cropping farm outcome;

Income similar to 2008

Fertiliser	+ 9900
Sprays	+ 1000
C Work	+ 1600
Fuel/electric	+ 8600
Labour	+ 4400
Total costs	+ 25500
Profit	- 25500

Fertiliser costs up 21%

Overall costs up 18%

Profit down 38%

(b) *Finisher*

<u>Farm Description</u>

History and Area:

The farm is located in a mixed farming area within lowland Aberdeenshire and lies between 50m and 120m above sea level. The land is classified as OMS (other mineral soil) over Sandy Loam and is almost entirely grade 3.1 and 3.2 with few restrictions on cropping. The mix of enterprises is relatively unchanged in recent times although some expansion has taken place with the purchase and rental of extra land.

Cropping:

There are around 130ha owned land, with a further 46ha rented seasonally for grazing and cropping. There are 161ha arable land including rotational grass, with 8ha permanent grazing and 5ha rough grazing. The cropping plan for harvest 2008 is as follows:

Wheat	21 ha
W. Barley	49 ha
S. Barley	41 ha
Grass	51 ha
Rough Grazing	5 ha
Swedes	2 ha
RSS land	5 ha

Surplus barley and all the wheat is sold. All new seed is purchased.

Livestock:

The farm currently carries a small suckler herd consisting of 15 commercial cows which calve inside in March/April. The calves are weaned in the autumn and the heifers are finished along with the purchased stores. Bull calves are kept entire and finished intensively on a barley-beef ration at around 14 months. Each year around 300 store cattle (virtually all heifers in recent years) are finished on a silage/barley ration in straw-bedded courts. They are bought at 350-450kg and can be anything from 12 months to 24 months of age when bought. Cattle are finished both at grass and over winter, allowing a fairly constant number of animals to be carried. All barley fed is grown on the farm, with only a small quantity of protein and minerals purchased. Around 12ha of grass is cut twice for silage. The finishing period averages under 8 months. Finished cattle are sold deadweight to a local abattoir at around 330kg with 25% achieving U grade and 75% R grade.

Around 400 feeding lambs are bought each September to graze down the grass. From January onwards they are strip-grazed on swedes and for the 4 weeks prior to sale in March/April they are fed a bought-in concentrate.

Labour:

This is a family farm, with father and son responsible for outside work and management, while mother is responsible for book-keeping and helps outside as required. No casual labour is employed.

Machinery:

Machinery is well maintained and there has been significant investment in recent years. Contractors are used for mowing grass, help with silage making and for OSR swathing and lime spreading.

Buildings:

There are cattle courts capable of housing 300 store cattle and two 400t-capacity uncovered silage pits. Grain towers have a combined capacity of 500t and there are various other general storage sheds.

Historical Performance

In recent years 400 cattle have been finished annually, but this fell to 300 last year. Cattle output also fell by £10,000 while crop output increased by £30,000 due to an increase in barley available for sale and an improvement in price. Profit in 2006/07 was £30,000 before drawings and tax, rising to £57,000 in 2007/08. Borrowings have remained fairly constant in recent years, a small increase in overdraft being mirrored by repayments made on a term loan.

Harvest 2008 Budget

Profit & Loss Account:

Costs		**Gross Output**	
Variable Costs		**Crops**	
Fertiliser & Lime	38600	Wheat	23500
Seed	9300	Barley	27200
Sprays & Crop Exp	15000	Valuations	11700

Costs		**Gross Output**	
Variable Costs		**Crops**	
Purchased Feed	4300		62400
Livestock Exp	16700	**Livestock**	
Casual Labour	800	Cattle	83500
Contracting	2100	Feeding Lambs	5500
	86800		89000
Fixed Costs		**Other**	
Machinery Expenses	7200	R.S.S. scheme	2800
Fuel & Electricity	17300	L.M.C. scheme	3500
Rent & Rates	9900	Contracting	600
Insurance	4800	Miscellaneous	400
Property Expenses	6200		7300
Miscellaneous	5200		
Interest	12100	**Single Farm Payment**	55000
Depreciation	20700		
	83400		
Total Costs	170200	Total Output	213700
Net Profit	**43500**		

Assumptions:

Wheat sales - 8t/ha sold x £140/t

S Barley - 5t/ha – 100t sold x £185, 58t sold x £150, 47t fed

W Barley - 7.2t/ha fed

Cattle purchased - 390kg x 150p/kg

Cattle sales - 315kg x 270p

SFP Exchange Rate - 1 euro = 79p

Nitrogen fertiliser - £325/t

Compound fertiliser - mainly in stock (saving £5-6,000 on current price)

Fuel cost - +23% on 2007

Electricity - +15% on 2007

Balance Sheet:

Liabilities	This Year	Next Year	Assets	This Year	Next Year
Total Borrowings	138500	144600	Debtors	17500	14500
Creditors	7500	8000	Valuations	160100	185500
			Machinery	78900	80700
			Investments	200	200
Net Worth	**1410700**	**1428300**	Heritable	1300000	1300000
Total Liabilities	1556700	1580900	Total Assets	1556700	1580900

Key Points

Fertiliser cost up £8,800 on 2007 (30%)
Fuel & Electricity cost up £3,100 on 2007 (22%)
Cropping area increase of 3ha on 2007, grass area increase 8ha
Growing crop valuation increases by £11,700 over the year
Cattle valuation increases by £13,800 over the year
Profit down £12,600 on 2007
Borrowings increased by £6,100 during the 2008 budget year

2009 guesstimate

Income similar to 2008

Fertiliser	+ 15600
Sprays	+ 1300
C Work	+ 200
Fuel/electric	+ 3500
Total costs	+ 20600
Profit	- 20600

Fertiliser costs up 40% but last year used from stock, so adjusted figure is up 26%
Overall costs up 12%
Profit down 47%

(c) *LFA Cattle and Sheep*

Farm Description

History and Area:

The farm is located in a largely livestock farming area of Aberdeenshire and lies between 110m and 160m above sea level. The land is mainly classified as OMS (other mineral soil) but there are also some Peat soils. The land around the steading is grade 3.2 and well suited to cropping. The higher land is lighter and more exposed, it is grade 3.3 and above and largely down to permanent grazing. There is also some rough grazing on the highest land and the entire farm other than 25ha next to the steading is classified as LFA. The farm operates a mixed system with suckler cows, breeding ewes and arable cropping. As the farmer is now near to retirement age he is reducing cattle numbers in order to ease the workload. Ewe numbers are being increased slightly and more use being made of contractors and casual labour.

Cropping:

There are around 154ha owned land, with a further 16ha rented seasonally for grazing and cropping. Of this, around 75ha is arable land including rotational grass, with 38ha permanent grazing and 41ha rough grazing. Additional winter grazing is rented on a weekly basis for the ewes. The cropping plan for harvest 2008 is as follows:

Wheat	9 ha
S. Oats	5 ha
S. Barley	35 ha
Grass	78 ha
Rough Grazing	41 ha
Swedes	2 ha

Surplus barley and all the wheat is sold. Seed is home-saved, with only enough new seed purchased to provide seed for the following year. Although malting barley has been sold in the past, nitrogen content tends to be too high in most years and normally the barley is sold for feeding.

Livestock:

The farm currently carries a small suckler herd consisting of 50 commercial cows which calve inside in October/November. The steer calves are sold as stores the following March, while the heifers are finished, selling between April and July at around 18-20mths of age. All cattle are fed a silage based ration, with home grown barley supplemented with purchased balancer and minerals.

The ewe flock has been increased this year and 460 ewes and gimmers, mainly mules, are now lambed in April. Lambing percentage is around 180%, with ewe lambs (which are purchased each year as replacements) achieving over 100%. All lambs are finished on the farm from July onwards. The later lambs are finished on swedes.

Labour:

The farmer himself is responsible for most of the outside work and management, while his wife is responsible for book-keeping and helps outside as required. Casual labour is employed for 1 day/week throughout the year, with full-time help during the lambing period.

Machinery:

A reasonable pool of machinery is owned, with the main tractor and telescopic replaced regularly. Contractors are used for sowing crop, silage making operations, FYM and lime spreading.

Buildings:

There is an excellent range of buildings spread between two steadings. Cattle courts are more than adequate for the now reduced cattle numbers carried, with ample silage-pit capacity and a large grain tower. Various other sheds are used for lambing, general storage, straw storage etc. There is also a second farmhouse which is let out.

Other:

There is an R.S.S scheme on the farm, a small area of woodland claimed under F.W.P.S. and the maximum aid available under the L.M.O. scheme is also claimed. The SFP is relatively high due to the cattle numbers previously carried.

Historical Performance

In recent years cow numbers have been reduced from 80 to the current 50, while ewe numbers have increased from 350 to the current 460. This has allowed a small increase in crop area and also a reduction in stocking rate. In 2007 a profit of £31,000 was generated, up from £23,000 the previous year. This was the result of an increase in grain and beef prices, with little change in costs (as the farm feeds home-grown barley it was protected from the rise in feed grain prices). Borrowings were reduced by £25,000 last year, of which £12,000 was due to the reduction in livestock numbers.

Harvest 2008 Budget

Profit & Loss Account:

Costs		**Gross Output**	
Variable Costs		**Crops**	
Fertiliser & Lime	20100	Wheat	10100
Seed	2800	Barley	14800
Sprays & Crop Exp	5900	Oats	4500
Purchased Feed	12200	Straw	1600
Livestock Exp	11700		31000
Casual Labour	5000	**Livestock**	
Contracting	5100	Cattle	43600
	62800	Sheep	38100
Fixed Costs			81700
Machinery Expenses	12900	**Other**	
Fuel & Electricity	14400	R.S.S. scheme	5000
Rent & Rates	7300	L.M.C. scheme	3500
Insurance	4900	LFASS	4200
Property Expenses	12800	Miscellaneous	400
Miscellaneous	6800	Woodland	400
Interest	10100	House Rent	2800
Depreciation	16500		16300
	85700		
		Single Farm Payment	42000
Total Costs	148500		
Net Profit	**22500**	**Total Output**	171000

Assumptions:

Wheat sales - 8t/ha sold x £145/t

S Barley – 5.8t/ha – 125t sold x £120, 75t fed

S Oats – 5.8t/ha sold x £150/t

Cattle sales store - 450kg x 155p/kg

Cattle sales finished - 280kg x 268p

Lambs sold 20kg x 220p/kg

SFP Exchange Rate - 1 euro = 79p

Nitrogen fertiliser - £350/t

Compound fertiliser - mainly in stock (saving £4,000 on current price)

Balance Sheet:

Liabilities	This Year	Next Year	Assets	This Year	Next Year
Total Borrowings	127100	133100	Debtors	3400	4200
Creditors	8900	3700	Valuations	111200	101800
			Machinery	68000	76500
			Investments	34500	31500
Net Worth	**1121100**	**1117200**	Heritable	1040000	1040000
Total Liabilities	1257100	1254000	Total Assets	1257100	1254000

Key Points

Fertiliser cost up £8,100 on 2007 (68%)

Fuel & Electricity cost up £2,500 on 2007 (20%)

Valuations down £9,400 over the year due to reduced cattle numbers

Machinery investment up £8500 over the year

Profit down £8,500 on 2007

Borrowings increased by £6,000 during the 2008 budget year

Farm Output down £1000 on 2007

2009 guesstimate

Income similar to 2008

Fertiliser	+ 9000
Sprays	+ 400
Contract Work	+ 500
Fuel/electric	+ 2900
Total costs	+12800
Profit	- 12800

Fertiliser costs up 45% but last year used from stock, adjusted figure is up 25%

Overall costs up 9%

Profit down 57%

(d) *Pig Unit*

Farm Description

History and Area:

This "averaged" pig unit based on the units which FCS provides services to. Most of these are mixed farms, but in all cases the pigs are crucial to overall business performance with a total of well in excess of 4,000 breeding sows. The figures below assume a farm with cereals and pigs where much of the grain grown is milled on-farm and fed to the pigs. However, a large proportion of the feed requirement is purchased. The land is of good quality, helped by the pig slurry and FYM applied.

Cropping:

There are 170ha owned land, with a further 190ha tenanted, almost all of which is arable but with some entered into an RSS scheme. The cropping plan for harvest 2008 is as follows:

Wheat	70 ha
W. Barley	123 ha
S. Barley	157 ha
W Oilseed Rape	9 ha

All the wheat and oilseed rape is sold soon after harvest. Some barley is also sold for cashflow reasons, but the majority is retained to feed to the pigs. All seed is bought, some direct from other farmers.

Livestock:

All progeny from the 520 breeding sows are finished, some in specialist buildings and some in straw-bedded courts. Replacement gilts are purchased and A.I. is used initially on all sows & gilts. Progeny are finished to bacon weight and sold deadweight through Scottish Pig Producers.

Labour:

The farm employs 6 full-time staff and 2 part-time. There are 2 employees who work on the arable side of the business, but also transport and spread FYM and slurry from the pig buildings. The other employees comprise a pig unit manager, 3 full-time and 1 part time pig worker and a part-time farm secretary.

Machinery:

Although a near full compliment of machinery is owned, much of it is relatively old. Contractors are used at harvest to supplement this and as a back-up at other times.

Buildings:

Annually, 2000 of the feeding pigs are finished on third party farms on a contract basis. All other pigs are housed on the farm, with finishing pigs in a combination of specialist buildings and straw-bedded courts. The buildings are of various ages and some are in need of upgrading, slurry storage and handling facilities are in particular need of improvement.

Historical Performance

Physical performance has improved over recent years, with mortality reduced and growth rates increased. Financially, last year the unit lost over £140,000 despite the improvement in grain prices from previous years. Low pig price and increasing costs were the reason, with borrowings increasing by £160,000.

Harvest 2008 Budget

Profit & Loss Account:

Costs		Gross Output	
Variable Costs		**Crops**	
Fertiliser & Lime	79200	Wheat	81400
Seed	22400	Barley	64800
Sprays & Crop Exp	42500	W Oilseed Rape	13000
Purchased Feed	690000		159200
Livestock Exp	147400	**Livestock**	
Casual Labour	200	Pigs	1078900
Contracting	24500		
	1006200	**Other**	
Fixed Costs		R.S.S. scheme	6000
Regular Labour	174400		
Machinery Expenses	44300	**Single Farm Payment**	89400
Fuel & Electricity	64500		
Rent & Rates	22100		
Insurance	14900		

Costs		**Gross Output**	
Variable Costs		**Crops**	
Property Expenses	12000		
Miscellaneous	21800		
Interest	61700		
Depreciation	64700		
	480400		
Total Costs	1486600	Total Output	1333500
Net Profit	**-153100**		

Assumptions:

Wheat sales – 9t/ha sold x £130/t

S Barley – 6t/ha – 420t sold x £120, balance fed

W Barley – 8t/ha fed

SFP Exchange Rate – 1 euro = 79p

Nitrogen fertiliser - £325/t

Compound fertiliser – average cost £460/t

Pig price rising monthly to 130p/kg

Balance Sheet:

Liabilities	This Year	Next Year	Assets	This Year	Next Year
Total Borrowings	763700	923400	Debtors	47800	54300
Creditors	136400	139500	Valuations	532100	591500
			Machinery	229000	210400
			Investments	200	200
Net Worth	**1609000**	**1493500**	Heritable	1700000	1700000
Total Liabilities	2509100	2556400	Total Assets	2509100	2556400

Key Points:

Total feed cost including home-fed grain £831,600 (77% of output, £72/pig sold)

Purchased feed cost up £80,000 on last year (mainly soya)

Rising fuel and electricity price, up £15,000 on 2007

Pig price increasing, uncertainty over future price

2009 guesstimate

Pig sales	+ 194300
Fertiliser	+ 25000
Sprays	+ 3900
C Work	+ 2400
Fuel/electric	+ 12900
Total costs	+ 44200
Profit	+ 150100

Pig income up 18%

Overall output up 14%

Overall costs up 3%

(e) *Dairy Farm*

Farm Description

History and Area:

This “averaged” dairy unit is based on those which FCS provides services to. All of these are mixed farms which include a cereal enterprise and some also have other livestock. The figures below assume a farm with cereals and a dairy with 180 cows.

Cropping:

There are 200ha of owned land, all of which is arable but with some entered into an RSS scheme. The cropping plan for harvest 2008 is as follows:

Wheat	20 ha
W. Barley	20 ha
S. Barley	29 ha
W Oilseed Rape	20 ha
Grass	107 ha
RSS scheme	4 ha

100t wheat and 100t barley is fed to the cattle, with the rest of the crop output being sold. Good yields are achieved with high inputs, including slurry, from the dairy herd.

Livestock:

The dairy herd comprises 180 Holstein cows with A.I. used across the majority to ensure enough quality heifers can be reared to maintain a 30% replacement rate. Beef bulls are used on the remainder with all their progeny and all the male dairy calves sold within a month of birth. During the winter a silage/draff/concentrate feed is fed via mixer wagon with extra concentrate fed in the parlour. Summer grazing is also supplemented, with the highest yielding cows remaining inside.

Labour:

In addition to the farmer, the business employs 4 full-time staff. There is a dairy manager, assistant dairyman, stockman and tractorman. In addition, a part-time secretary and a relief milker are also employed.

Machinery:

Contractors are used for grass mowing, silage chopping and carting. Crops are also sown, sprayed and combined by a contractor. Much of the machinery owned by the business is quite old, with little investment in recent years.

Buildings:

As with the machinery, the farm buildings have had little investment in recent years. Slurry storage facilities in particular will require upgrading to meet new regulations.

Historical Performance

Low prices for cereals and milk were the main contributors to low profits in the years up to 2006/07. Last year an improvement in both lead to a profit of £50,000 being achieved. Low capital expenditure meant that borrowings, which had been gradually increasing in preceding years, fell by £20,000.

Harvest 2008 Budget

Profit & Loss Account:

Costs		**Gross Output**	
Variable Costs		**Crops**	
Fertiliser & Lime	47400	Wheat	9000
Seed	8300	Barley	28100
Sprays & Crop Exp	11300	W Oilseed Rape	25900
Purchased Feed	102300	Valuation change	21400
Livestock Exp	38200		84400
Casual Labour	0	**Livestock**	
Contracting	16000	Milk	382500
	223500	Cattle	22300
Fixed Costs		Sheep	2400
Regular Labour	109200		407200
Machinery Expenses	36000	**Other**	
Fuel & Electricity	43200	R.S.S. scheme	7200
Rent & Rates	1200	Miscellaneous	400
Insurance	8000		7600
Property Expenses	15000		
Miscellaneous	11200	**Single Farm Payment**	77000
Interest	26000		
Depreciation	28400		

Costs		**Gross Output**	
Variable Costs		**Crops**	
	278100		
Total Costs	501700	Total Output	576200
Net Profit	**74500**		

Assumptions:

Wheat sales – 8t/ha, 60t sold x £150/t, 100t fed

S Barley – 6t/ha sold x £120

W Barley – 8t/ha, 60t sold x £120, 100t fed

SFP Exchange Rate – 1 euro = 79p

Nitrogen fertiliser - £325/t

Compound fertiliser – average cost £450/t

Milk output 8500l/cow x 25ppl

Balance Sheet:

Liabilities	**This Year**	**Next Year**	**Assets**	**This Year**	**Next Year**
Total Borrowings	334000	302900	Debtors	55000	37100
Creditors	37000	29700	Valuations	265800	287100
			Machinery	108000	109100
			Investments	500	500
			Structures	62000	57500
Net Worth	**2120300**	**2158700**	Heritable	2000000	2000000
Total Liabilities	2491300	2491300	Total Assets	2491300	2491300

Key Points:

Fuel & electricity costs up £12,000 on previous year (40%)

Crop output up £15,000 on previous year

Growing crop valuations up £21,000 over the budget year due to increased input costs

Overall profit up £22,000 on previous year to £74,500

Single Farm Payment up £7,000 due to exchange rate change

2009 guesstimate

Income similar to 2008

Fertiliser	+ 9900
Sprays	+ 1000
C Work	+ 1600
Fuel/electric	+ 8600
Labour	+ 4400

Total costs	+ 25500
Profit	- 25500

Fertiliser costs up 21%

Overall costs up 18%

Profit down 38%

2. ABERDEENSHIRE STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS.

The Strengths and Weaknesses which follow are **internal** and **existing** features of the industry in Aberdeenshire. The Opportunities and Threats are **external** pressures which we judge are most likely to have an impact on the industry in **future**.

STRENGTHS

- Surprising resilience of all sectors through period of lowest prices, disease shocks, export bans. Numbers and acres have declined, but modestly. Even post decoupling of subsidy in 2005 there has only been limited change (to date) while some other areas of Scotland have seen a much greater response. This provides some stability for the Aberdeenshire processing sector. The dominance of family farming is seen as a major reason for resilience through tough times. The benefits of mixed farming in an area with variable land quality and risky weather is also seen as a brake on change.

- Strong Balance Sheets. The rapid increase in property values over the last 10 years has given farmers (especially non tenants) a tremendous degree of resilience despite fluctuating and often poor incomes. It may not be pleasant to be cash poor and asset rich, but it gives individuals options and has avoided the forced sales of the last major slump in the late 1980's. Over time it has allowed restructuring of small farms which could not provide a family living.

- Enterprise mix. Aberdeenshire has all the enterprises found in Scotland from soft fruit to laying hens. This has a number of benefits; a range of skills in one relatively small geographic area, more options for farms, a range of food sector/processing opportunities for the local economy, positive interactions between enterprises such as straw sales for cattle bedding and carrot mulching, brock potatoes for finishing cattle. Each enterprise can contribute to the others viability and the mix reduces risk. For example over 70% of pig units do their own feed mixing using homegrown grain, which has given many the ability to survive through a period of very high feed prices.

- Land quality. Clearly Aberdeenshire does not have the best soils in the world, but the bulk of the farmed area in the region can grow a range of crops and forages. This allows adjustments between enterprises on farms as economics change and perhaps just as importantly gives scope to operate existing enterprises in different ways.

- Range of size of units and in land ownership. Aberdeenshire has one of the highest rates of owner occupation, but unit size varies widely with a polarisation into small and large units. This gives a lot of flexibility with small “hobby” units renting out grass and to a lesser extent cropping land to larger businesses on annual or other short term agreements. Smaller family farms contribute to entrepreneurship and the vibrancy of the area as they innovate to generate an income for the next generation.

- Consolidation in beef finishing (25% of Scotland’s finishing cattle are in Aberdeenshire) and to a lesser extent lamb finishing. 43% of the national prime cattle and 41% of lamb are slaughtered in the region and this share has been increasing.

- Red meat sector infrastructure. The high concentration of Scotland’s meat processing in Aberdeenshire adds value to the local economy and sustains a large local cattle and sheep finishing sector. This has created important links directly into the major UK retailers and has spun off a number of small, but growing speciality meat businesses who can benefit from the local butchery skills and slaughtering capacity.

- Livestock breeding skills. Livestock is a core enterprise with strong traditions in the area. Aberdeenshire arguably has a much higher number of show winners and top sale prices at a national level than would be expected given it share of the overall livestock industry.

- Signs of ability to adjust to market; extensification, soft fruit, eggs, small niche meat and other food businesses

- Northern climate. Traditionally this has meant healthier crops and livestock e.g. seed potato production free of aphid attack, less susceptibility to disease spreading from the continent (blue tongue, FMD). It has also, in the past, allowed out of season cropping e.g. soft fruit after the English crop is finished, though technology may have wiped out this benefit.

- Space. This is the largest contiguous block of farmed land north of Yorkshire. This has given scope for scale in individual enterprises, gives producers opportunities to expand within land quality, culture and climatic conditions which are familiar and allows semi intensive livestock systems which are attractive to consumers.

- Strategic geography. Generally the north east would be seen as remote and disadvantaged in terms of its location. This will be the case for some enterprises serving the concentration of consumers in the south. However the region has some major location advantages. Firstly from an arable sector point of view it is very well served by ports. This allows, for example, the local oilseed rape crop to bypass costly trucking to Hull or Liverpool, and instead ship directly to Belgium / Germany. Grain traders see great advantage in the arable areas of the North East being no more than 30 miles from a port. Secondly the proximity to an expanding malting and distilling industry has allowed Aberdeenshire to become an important malting barley area (a third of the malt barley requirement now comes from the North East) despite its lateness.

- Critical Mass. The North East has been big enough to attract and maintain a range of suppliers and buyers. Even as the input supply sector has consolidated at break neck speed, their lean structures have allowed them to maintain a presence in the North East. They have not "closed the gate at Perth". The rise in commodity prices may help in this respect. Even as some major players have collapsed or withdrawn, new players have entered the market e.g. NEF and the rise of ECV.

- Cohesion. This may not be the correct word for the phenomenon which has been described to us by many interviewees. However, it means there is a sense of belonging, a commitment to the area, an enthusiasm for the industry, an entrepreneurial spirit, a positive outlook and an openness to change. This is difficult to support with quantitative data, but as an example the area has 12 co-ops, much more than the other Scottish regions. There are a large number of local organisations supported by the industry; an independent Farm Management Association, the Royal Northern Agricultural Society, a Grassland Society, a surprisingly resilient YFC movement, a strong show circuit, and perhaps 30 agricultural discussion groups.

- A very vibrant agricultural co-operative sector with 12 co-ops active in Aberdeenshire. They make an important contribution to successful marketing chains, cost reduction and in some cases provide the dominant leadership e.g. Scottish Pig Producers in the pig industry. This is a strong base for future development.

- Capable people. As well as farmers there are a number of very capable leaders of key organisations.

- Not as heavily reliant on LFASS as other regions, except Marr which receives 52% of Aberdeenshire LFASS and has the highest receipts per business averaging approximately £3,300 over 418 businesses compared to the Aberdeenshire average of £2,600 over 1,017 businesses. In Marr 20% of businesses have a LFASS payment exceeding £5,000 (in 2007) while most regions of Aberdeenshire have less than 10% of businesses with a payment of this scale.

- CAP Health Check progressive modulation may be little more of a threat than the existing planned Scottish Voluntary Modulation and affects very few businesses (removes approximately an extra 406,000 Euros from 160 businesses, an average reduction of 2,541 Euros)

- SGRPID Thainstone. Despite a difficult “policing” relationship with farmers, the feedback is that the concentration of knowledgeable staff at Thainstone, the efficient service provided and the update meetings for farmers and consultants, are a real strength for the area.

- A strong local economy. While this has also created problems, the strength of the local economy even in the remotest rural areas of Aberdeenshire has allowed small farms to go part-time and to improve their overall household income. It has also allowed a small number to diversify into new enterprises, though this has been a process which has benefited large farms more than small.

- Proximity to a major city (Aberdeen). Areas such as Dumfries and Galloway and even the Borders feel that their agricultural sector and rural economy suffers from the lack of a city focal point. The city enhances the overall infrastructure, increases asset values which assists restructuring and investment, creates niche markets, fosters a food industry, supports education facilities and creates competition for resources (labour, land, capital) which arguably makes farming investments better targeted and pushes up productivity.

- Little officially measured “deprivation” in rural areas – only in “access”. Population generally growing, even in the remotest parts of Aberdeenshire.

- Strong food and drink sector; 20% of Scottish food sector employment, 30% of Scottish food and drink exports, 20% of added value.

- Tourism sector not large, but when Aberdeen city is included it is doing better than rest of Scotland; occupancy rates better and growing.

- Environment, conservation, biodiversity. This is due to the high degree of mixed farming, pockets of unimproved land even in the best areas, little monoculture, lots of spring cereals with overwintered stubbles, a generally low reliance on slurry systems, a recent increase in uptake of lowground woodland options, a significant number of small part time units which tend to be less intensively farmed and an active and well informed consultancy sector. The result is few negative externalities, a number of real environmental/ biodiversity benefits and an ability to adopt schemes such as the RSS.

WEAKNESSES

- Resilience is subsidy dependent. At least part of the resilience of the industry through the low prices of the 2000 to 2006 period was due to the level of subsidy receipt – average of £24,359 of SFP per business in 2005. Calculations of direct subsidy as a proportion of total output suggest Aberdeenshire is more dependent than Scotland as a whole (38% versus 35%). This underpinned the whole business profit and many farmers are not as yet looking at the unsubsidised margin of individual enterprises in making decisions. A future price shock may force this, as will the relatively fast decline of the SFP in real terms (especially in relation to input costs). This fragility is especially true of the beef sector, perhaps especially finishers, which had high levels of direct subsidy support.

- Subsidy distribution is skewed. In Aberdeenshire around a third of the SFP is received by only 8% of the farm businesses. These large businesses have a disproportionate share of the regions agricultural output and may be the most sensitive to subsidy changes.

- Intensity. Aberdeenshire farms have higher stocking rates, more conserved grass, more intensive enterprises (pigs, poultry) than other regions of Scotland. High fertiliser, feed and fuel costs may have a disproportionately larger impact on Aberdeenshire than the rest of

Scotland. Indeed there is already a reaction; the main trend of the last 5 years has been extensification.

- Inherently higher costs of production than in the more climatically advantaged areas of Europe and the rest of the World.

- Distance from main markets; increases cost, reduces market knowledge.

- While there has been a major growth in demand for information on world markets, especially grain markets, the understanding of the rapidly changing world situation and what this means for farming in Aberdeenshire is generally poor.

- Labour. Not always a lack of interested young people, but difficult to keep and develop them in face of high wages and good working conditions elsewhere. Many farms not able or willing to alter structure to improve conditions and remuneration. Immigrant labour may only be a short term fix. Increasing reliance on ageing family labour.

- Weather. This is a higher risk cropping area than most others. For example successive bad harvests in 1985 and 1987 had a major and long lasting impact on farming.

- Increasing overall risk (more winter cropping and wheat, high input costs and hence high working capital, volatile end prices, declining property and consumer markets, decoupled and declining subsidy).

- Little technical improvement over the last 20 years, especially in the cattle and sheep sectors e.g. until recently and the wider adoption of Estimated Breeding Values, cattle growth rates/ feed conversion efficiencies had not improved since the introduction of Continental breeds.

- Low technical ability in cropping. Trade feedback is that despite preponderance of cropping, livestock is seen as the core enterprise and technical skills in cropping are poorer than in Fife, Angus, Borders.

- Lack of management capacity to cope with legislation and RDP opportunities

- Lack of investment, especially in marginal land. Set aside rate (pre-decoupling) higher than other regions.

- Low margins and low added value in the processing sector. Red meat plants working seriously under capacity. Hence low investment and inability to innovate. Strong evidence that in some sectors at least it is difficult to do the added value operation (e.g. meat processing into meals) away from the main population centres and retail/ food service customers.

- Loss of chunks of the processing sector e.g. milk, pigmeat, poultry, potatoes. Given the increasing costs of exporting raw materials from the region this makes entire sectors such as pigs and dairying fragile. This may be protected by the Scottish brand which acts as an incentive to at least maintain processing in Scotland.

- Education and training; diminishing supply locally and training too dependent on legislation compliance rather than developing people.

- Research. Loss of local specialist skill base, withdrawal of University and SAC. Nearest University with agricultural degree is Newcastle.

- Intensive cropping and livestock enterprises seem to be concentrating in Buchan and Formartine; problems with NVZ and environmental compliance?

- Environmental scheme payments do not match current margin losses. Risk of non renewal. Also do environmental schemes actually address biodiversity and reward the correct practices?

OPPORTUNITIES

- Seed and breeding stock. For example other areas of Scotland have gone heavily into ware potatoes (75% of Angus potato area) while Aberdeenshire has gone the other direction (75% seed). UK beef herd badly infected with Johnes and BVD. Develop clean/ resistant stock here? Since the lifting of the BSE related live cattle export ban, there have been significant sales of breeding stock to Continental Europe. This area once sold significant quantities and values of stock throughout the world.

- Soft fruit and protected crop expansion. Partly this could be due to the fact that we have water while irrigation options in England are literally drying up. Commentators in Eastern England see this as a major issue.

- Reclaiming marginal land. This would be a potential disaster for biodiversity targets, but in a hungry world willing to pay high prices it is an option in the North East given the large area of marginal hill available and the significant area of previously arable which has reverted to permanent grass/rough.

- GMOs, livestock growth enhancers and a wide range of technical improvements especially in the area of livestock genetics where selection for particular traits will become much simpler.

- Malting market expansion. Major malting investment in Scotland and expansion of distilling. Opportunity to form new long term linkages into the maltsters and distillers.

- Generic quality development. As discussed under Strengths, the area has some very good quality features and could build on these for meat, crop, tourism and conservation sectors. This may be a better adding value option than trying to stimulate added value processing which needs to be based nearer to the major population centres.

- Building a better fit to markets. This means creating “integrated supply chains” where producers, processors and retailers/food service companies work together to create better margins. Examples include the GPP heavy pig project.

- Meat sector rationalisation/consolidation. The abattoir sector has excess capacity, most are close to or surrounded by housing developments, facilities are old, access and on-site use of waste is difficult.

- Waste. Adding value/ reducing the cost of the fifth quarter must be a priority for the meat sector. The local rendering plant is in limbo and there are no local outlets for cull ewes, cows and sows. Generating heat or power from waste is also an option.

- Climate change. Also a threat, but as described earlier it could be an opportunity for high value crops and for cheaper livestock wintering systems.

- Renewables, biofuels and biomass. Straw based power generation is not viable in the face of alternative uses of straw locally, but given the large marginal land area, ongoing large scale investment in housing and energy expertise in the north east there may be opportunities for village/ estate scale CHP schemes fuelled by biomass. Also micro-generation such as micro-hydro.

- An Aberdeenshire training strategy. The main feature could be a "Workforce Development Strategy". There is a real problem in retaining young people and building up skills because the industry cannot compete with oil sector pay and conditions and training is all to do with legislation. The training strategy must not just be for employees, but for farmers to help them design better conditions and innovative employment contracts. It must also bring together the training bodies and encourage business and technical skill development – a modern apprenticeship.

- Sell local skills globally. The oil industry has moved into a phase where it leads the world in offshore technology and sells that expertise worldwide. Could the local agricultural industry do the same? There are aspects of this already happening, with investment by local farmers in Eastern Europe.

- The SRDP (Pillar 2 of the CAP) – make use of it to improve skills, develop new businesses, invest in farming improvements, develop environmental income streams, get into niche markets.

THREATS

- Being on the margin of the UK and Europe. Potentially ignored by input suppliers and crop breeders. For example crop varieties may increasingly be bred to suit global grain belt conditions rather than our climate.

- Disease, especially livestock disease. Aberdeenshire especially vulnerable given imports of finishing cattle and its strong role in breeding stock trade?

- Cost of power and impact on transport, farm fuel, fertiliser. An important threat in an intensive farming area with distant markets.

- Reduction in range of crop chemicals and veterinary products due to EU legislation

- Increase in regulatory load and legislation which increases costs or stops some activities. In addition the natural concentration of intensive enterprises into fewer businesses and into specific areas of Aberdeenshire might threaten the good environmental credentials of the region.

- Reduction in Single Farm Payment and possible shift to flat rate SFP. The speed of any change is especially critical.

- Loss of processing sector (pig, vegetable, poultry processing capacity already lost). Where production is of perishable product or low unit value in relation to transport costs, this can threaten whole sectors of agricultural activity.

- Reduction in Scottish cattle numbers and impact on meat processors based in Aberdeenshire. The trend in local stock numbers may not be as important to their viability as is the total Scottish trend.

- Global competition and liberalisation of world trade. Beef is expected to be especially sensitive to lower tariffs. Quality and mixed farming may be a protection against this possibility.

- Carbon footprint of ruminant livestock systems. Perception is that this is high and policy makers might see reductions in cattle numbers as a means of meeting targets, though there are questions over the measurement methodology.

- Climate change - Major weather "events" resulting in bad harvests and loss of advantages of northern climate.

- Capital tax changes. These are very favourable for farming at present and a harmonisation with other assets may reduce land values and the ability of farm businesses to borrow and restructure.

- Planning policy becoming more restrictive toward farm buildings, steading conversions, diversification, renewable energy.

- Severe lack of labour and restrictions on migrant labour

- Loss of skills, education options, research and quality of advice. Slow loss of competitiveness through lack of technical improvement as both practical "near market" and fundamental research base disappears.

- Recession in the UK and global economy. Fewer part time jobs, move away from luxury products (whisky, beef, tourism), less investment in countryside.

PART 3. THE LONGER-TERM FUTURE

(i) SCENARIO PLANNING WORKSHOP METHODOLOGY

The workshop took place on the evening of Wednesday 30 July at the Council Chambers, Gordon House, Inverurie and involved 13 invited participants and 3 members of the study team. The aim of the workshop was to briefly test our draft Aberdeenshire SWOT and more importantly gather the thinking of people involved in a range of aspects of the industry on what might drive the future shape of the industry and what this might mean for farming and the wider rural economy. In the workshop we were asking participants to think beyond what we expect to be the drivers of change over the next couple of years and to consider issues, threats and opportunities which are on the horizon of current thinking.

The structure of the workshop was as follows.

- Introduction to the study and the aims of the workshop
- Presentation of the draft Aberdeenshire strengths and weaknesses, discussion on ranking and any missing features.
- Brainstorm; "What will drive the future of agriculture in Aberdeenshire over the next 10 years?" This resulted in a long list of points on 6 flipcharts which were fixed to the walls. After the brainstorm the opportunities and threats listed in our draft SWOT were reviewed and any not brought up by the group added to the brainstorm lists.
- Over a tea break the participants then applied three "votes" to what they individually felt were the most important factors listed in the brainstorm.
- The top rated factors were then used to create the two axes of a quadrant, which defined 4 different scenarios for the future of Aberdeenshire agriculture.
- The participants were asked to name each scenario and then were split into 4 groups to work on what each scenario would mean for Aberdeenshire. The groups were asked to consider what would happen to Farming (structure, enterprise mix, technology), People (full time/part time, availability, skills required, migrant labour, new entrants), Marketing and Processing Chain (expand/ contract, consolidation, types, relation with suppliers, technology, staffing), and the Wider Rural Economy (jobs, incomes, the environment and biodiversity, other land uses, tourism, property prices, diversification)
- This was all fitted into a 2.5 hour workshop, so the aim was to get key points which we could then work on.

(ii) SWOT

Participants largely agreed with the draft SWOT, but added to strengths were the family farming structure (which gave resilience to tough times) and keen competition for extra land (perhaps an indication of enthusiasm, more new entrants, smaller farms trying to expand and economies of scale rather than a strength in itself). Water quality was seen as a possible weakness in some areas e.g. Ythan catchment. The overcapacity nature of the meat processing sector was emphasised as a weakness as were higher production costs for mainstream commodity crops and livestock in comparison with climatically/ locationally advantaged areas of Europe and the rest of the World. Climate change was seen as both a threat (more severe weather events and the high carbon footprint of ruminant livestock) and an opportunity (we have water, which many traditional intensive crop areas may not in future).

(iii) 10 Year Drivers of Agricultural Change

The group were asked what they thought would be the key drivers of change in agriculture in Aberdeenshire over the next 10 years. Their list was as follows;

Profitability	Consumer and retailer preference/ trends
Demand for food	Support schemes like SRDP
World prices	Flattening of Single Farm Payment
Commodity prices versus input costs	Future of Single Farm Payment
New entrants	State of global/ UK economy
Food regulations	Globalisation trend
Red tape in general	World trade negotiations
Tourism/ accessibility	The farm buildings stock (deteriorating, ageing infrastructure)
Ability to develop niche products	Land prices
Expansion opportunities (land to rent, buy)	LFASS reform
Climate change	Knock on effect of “collapse” of farming in west/ north
Western peripheral route	Availability of capital
Availability of land	Demand for environmental goods e.g. RSS
Agricultural Holdings legislation	Staff availability
Westminster/ Holyrood view	Capital tax regime
Advances in technology and whether allowed e.g. GM	Staff skills
Rendering facilities/ cost of waste	Government/ EU policy
Future of the Grampian Country Food Group	

International ownership of processing/ input supply and fewer local decision makers Concentration of processing/ marketing Local brands Local outlets/ routes to market Local food – tourism link Consumer education Ability to add value locally Export driven versus local demand Business skills/ ability Confidence at farm level (related to volatility, risk) Traditional versus Business view	Events (BSE, FMD, Blue Tongue, currency collapse) Credit crunch Energy prices Average age of farmers/ retiral Biofuels and renewables and energy policy Diversification and off farm job opportunities Part time farming shift Support from the Council/ planning policy Aberdeen prosperity or otherwise Competition and our competitive advantage Understanding global markets

We could group these under a small number of headings;

<u>Globalisation Economics</u>

This would include foreign competition and whether or not we can compete, world trade negotiations, the concentration of processing and internationalisation of ownership, competition and high prices for inputs, the need to understand global markets and the likely level of world commodity prices. This constitutes a much bigger part of the list than might have been the case 10 years ago, so it is not surprising that these factors feature strongly in defining the next 10 years.

<u>Local outlets identity and markets</u>

Local branding, niche markets, local outlets, the ability to add value locally, export versus local markets, the future of local processors and locally controlled food businesses all feature strongly in the list. The decline in stock numbers in the north and west also feature here in that they reflect a fear over the future of local processors.

<u>Agricultural policy and subsidy support</u>

The future of the SFP, the result of EU reforms, the SRDP and environmental scheme support all feature in the list as does concern over Westminster and Holyrood views on the agriculture sector.

Infrastructure concerns

This is at two levels; the farm infrastructure (deterioration of the buildings stock) and regional/national including the Western Peripheral Route (and other transport and communication concerns), the lack of local rendering facilities, planning policy and holdings legislation and its effect on land available for let.

The Business Environment.

This is clearly high on peoples minds given the recent downturn in the UK economy. It includes the impact of the credit crunch, consumer preference changes, the availability of off farm jobs and diversification opportunities, property values, red tape and regulation. The importance of Aberdeen City is clearly stated. The impact of unknown/unpredictable events such as disease outbreaks and world weather events is also seen as important. The feeling is that risk has increased, perhaps as the World economy has come through 10 easy years and faces 10 difficult years.

Competitive advantage

Despite the understandable emphasis on external factors there is a strong recognition that business skills, staff skills, market understanding, the ability to develop niche markets, technology advances, bringing in new people and having a business rather than a strictly traditional view are all critical to the future of agriculture in Aberdeenshire.

While many of the drivers are global, there are many which are local or have local aspects; skills, staff availability, local infrastructure (the WPR, planning policy), diversification opportunities and regulation, disease management, local branding, local niche markets and the local food-tourism link, biofuels and renewables infrastructure.

Ranking

The top five areas selected by the participants as drivers of the shape of agriculture in Aberdeenshire over the next 10 years were;

1. Balance between commodity prices and input costs and impact on profitability
2. The impact of the UK and world economy and globalisation trends
3. Staff/ people issues, especially sheer availability, skills and business view
4. Unpredictable events such as BSE, FMD, climate change
5. CAP and Government/ EU policy

Receiving fewer votes were infrastructure issues (rendering facility, agricultural holdings legislation) and the average age of farmers.

(iv) FUTURE SCENARIOS

The group felt that the two axes should be "General Business Conditions" (items 1 and 2 in the ranking above i.e. prices, markets, capital availability, consumer preferences and wealth) and "Business Ability" (item 3 - staff/ people ability/ availability - from the list above plus adoption of technology, investment).
This gave the following four scenarios.

Business Ability
GOOD

"Survival of the Fittest"	"Mercedes Country"
"Tatties Ower The Dyke"	"Treading Water"

POOR ← ***General Business Conditions*** → **GOOD**

POOR (Business Ability)

The groups prepared pen pictures of each scenario and these are expanded below.

“Survival of the Fittest”

In this picture of the future the industry has good technical skills, has developed skills in learning best practice, has invested in technology and has ample staff. However, the business environment is tough with depressed prices or very high input costs, expensive capital and perhaps strong import competition. This could reflect the position if Aberdeen were hit by a low oil price and EU import tariffs were reduced.

The result is a faster expansion of the larger and most capable farm businesses, an expansion of part-time farming even if off-farm wages and opportunities are poor, and a squeeze on medium size family farms. The standard responses - specialisation, expansion, rationalisation – speed up. The farming enterprise mix is unchanged. Diversification and developing local niche food markets is difficult. The commodity processing sector is likely to be under pressure as farmers simplify systems and extensify (less stock on the same acres). The pattern of low investment in the processing sector persists and consolidation speeds up. The environment and biodiversity benefits from the lower intensity of production and the rapid uptake of schemes as farmers tap any available sources of income. The pressure on incomes and some Balance Sheets means farmers adopt low risk strategies.

“Tatties Ower The Dyke”

This scenario assumes a tough business environment and a poor ability to compete within the local industry. It could reflect the outcome of a prolonged period of “Survival of the Fittest” in which investment has been low, good people have left the industry, some parts of the supply and processing sectors have disappeared or are in terminal decline, support through environment and diversification schemes is limited and education, advice and training availability have also declined. Alternatively it could reflect a situation where the Aberdeen oil economy is buoyant, but the UK and World economy is in a sharp recession and farming margins are depressed by falling demand and an increase in world competition stimulated by previously high prices.

The impact on farm structure is similar to the previous scenario – opportunities for the fittest, difficulties for the weakest. Supplementing incomes from elsewhere becomes a necessity rather than a choice. Tourism and other diversifications are difficult, but expand. Destocking to cut costs while maintaining SFP income is a common strategy. However, this means the industry is very sensitive to any further reform of the CAP. A move, say, to a flat rate payment scheme would result in rapid restructuring in those areas most affected. It is perhaps only in this scenario that we could envisage real movements of farm related people out of the most marginal farming areas to areas where there are job opportunities. However this creates opportunities for a faster movement of urban dwellers to the countryside. The horse population increases. Investment in farming is very low and some marginal land is effectively abandoned, stocked very lightly or afforested.

Lowground woodland schemes are attractive. At least one meat plant closes. Machinery dealers rationalise. International input suppliers consider "closing the gate at Perth".

"Treading Water"

The group felt this scenario was unlikely as it assumed a poor ability to compete, poor staff availability and skills and poor investment levels while general business conditions were good. They felt this could only be a short term scenario as favourable business conditions would given time facilitate the improvements in the competitive condition of farms. This could be seen as part of the rapid cycles of expansion and depression which occur in an industry open to a range of world market effects.

However, it was seen as a situation favouring opportunists who could invest and expand rapidly to cash in on the improving market and business conditions. The vacuum will pull in Irish and other foreign buyers. The challenge would be managing investment and staff, adopting new skills and techniques and working with the processing sector and market outlets to form new relationships. Processors would have market opportunities, but would be drawn back down the production chain (contracts, producer groups, supply agreements, transparent price schedules) to stimulate and secure more output. Areas close to Aberdeen may see more investment due to movement of those benefiting from the oil sector while more outlying areas such as NW Aberdeenshire stagnate or develop much more slowly.

"Mercedes Country"

This scenario is perhaps easiest to describe. It assumes a confident farm sector investing in the infrastructure, skills and technology needed for the future, operating in a positive business environment with good margins.

The most visible outcome is investment in buildings, machinery, breeding, land improvement, processing, the supply sector and cooperative ventures. The industry attracts new blood and abilities. Despite good margins in traditional enterprises, more producers who are constrained by farm size or family aspirations or land quality get involved in added value activities. Expansion is costly and competition for land strong, so intensification of existing systems and adding value make sense. Technologies to make better use of land and stock proliferate e.g. fertiliser precision techniques, scanning. This intensification requires labour so the rate of employed labour decline slows. Farm structure is fairly static, especially as land prices approach Irish levels. Stock numbers rise where there is processor capacity to support it and the capital intensive dairy, poultry and pig sectors revive given suitable market conditions. Intensification does not favour biodiversity and SRDP environment options struggle to compete with farming alternatives. Even small, part time farms which are usually less intensive and more environmentally beneficial adopt more winter cropping and heavier stocking given the improved margins. The industry becomes less sensitive to changes in the CAP.

(v) CONCLUSIONS

- Despite the current prominence of global issues, there are **real local drivers** of future prosperity in this sector. These include infrastructure (roads, rendering facilities, the water distribution network to allow benefits from climate change, planning controls on diversification), the regional "brand", labour supply and skills, the local education and research base, the sheer ability of local producers/ suppliers / processors and, for some, exploiting local niche markets.

- **Change is the new constant**. One of the comments from participants in the scenario planning workshop was that over the next 10 years we could experience several of the scenarios. "Change management" becomes critical; having access to market information which helps predict when change will happen, maintaining a mixed business, knowing your costs of production, making fixed costs variable, protecting prices, correctly timing investment. The industry lacks many of these skills.

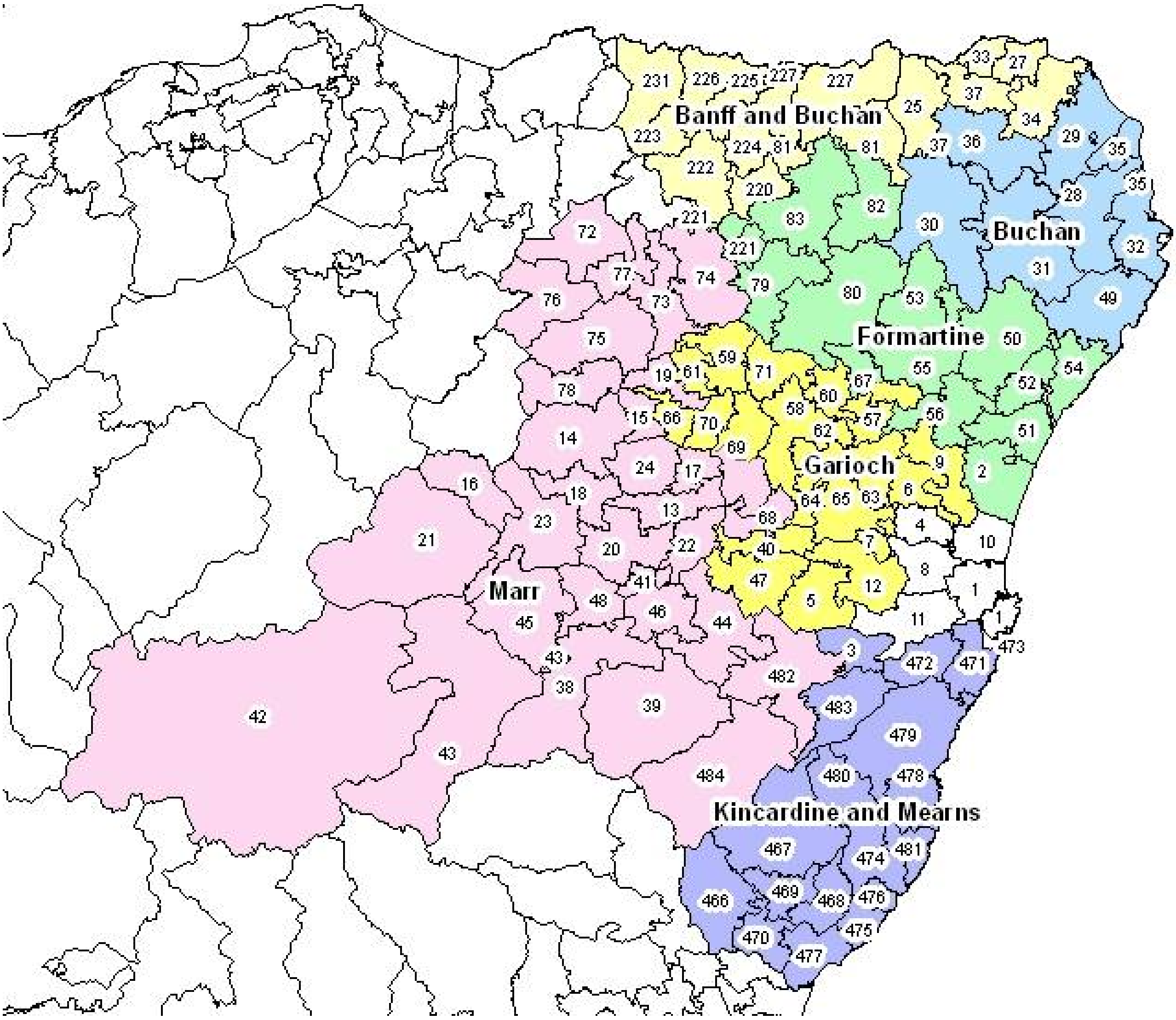
- The shift to **part time farming** remains a feature of all scenarios. Mechanisms to achieve this transition while still allowing active farming and continuity of supplies to the processing and food sector will be important for Aberdeenshire. Machinery rings have had a major part to play so far.

- Several of the scenarios put the processing sector, especially **meat businesses**, under severe pressure. Actions which can reduce their costs locally and which can help them tie into premium markets are clearly important. A contingency plan or impact assessment for the loss of one red meat plant needs to be considered. Likewise the loss of the only Scottish pigmeat plant needs to be actively considered.

- One axis of the scenario planning framework is about the **ability of the people in the industry to compete**. However, the region has lost its University agricultural degree, SAC are likely to leave Craibstone and have already shifted most research and specialist advisory staff to Edinburgh, and Clinterty has no agriculture students. Training is almost entirely on statutory requirements. No body is coordinating or capturing the lessons from the range of development programmes (Monitor Farms, etc). One example; a surprisingly large proportion of the farm managers in Aberdeenshire have the “FBOM” farm business management qualification. This course no longer exists.

- The impact of different scenarios on **biodiversity** and perhaps even water quality is poorly understood. On the one hand it is felt that prosperous and larger businesses will have the ability to invest in the environment (especially through schemes), while others feel that smaller part time farms which tend to adopt more extensive livestock and spring cropping systems are inherently better for biodiversity whether they are in schemes or not.

APPENDIX 1 MAP OF ABERDEENSHIRE STUDY AREA PARISHES AND ADMINISTRATIVE SUB-DIVISIONS



APPENDIX 2 STUDY AREA PARISH LIST

PARNO	APNO	NAME	ABADNO	ABADNAME
25	P25	Aberdour	A1	Banff and Buchan
27	P27	Fraserburgh	A1	Banff and Buchan
33	P33	Pitsligo	A1	Banff and Buchan
34	P34	Rathen	A1	Banff and Buchan
37	P37	Tyrie	A1	Banff and Buchan
81	P81	King Edward	A1	Banff and Buchan
220	P220	Forglen	A1	Banff and Buchan
222	P222	Marnoch	A1	Banff and Buchan
223	P223	Ordiquhill	A1	Banff and Buchan
224	P224	Alvah	A1	Banff and Buchan
225	P225	Banff	A1	Banff and Buchan
226	P226	Boyndie	A1	Banff and Buchan
227	P227	Gamrie	A1	Banff and Buchan
231	P231	Fordyce	A1	Banff and Buchan
26	P26	Crimond	A2	Buchan
28	P28	Longside	A2	Buchan
29	P29	Lonmay	A2	Buchan
30	P30	New Deer	A2	Buchan
31	P31	Old Deer	A2	Buchan
32	P32	Peterhead	A2	Buchan
35	P35	St Fergus	A2	Buchan
36	P36	Strichen	A2	Buchan
49	P49	Cruden	A2	Buchan
2	P2	Belhelvie	A3	Formatine
50	P50	Ellon	A3	Formatine
51	P51	Foveran	A3	Formatine
52	P52	Logie Buchan	A3	Formatine
53	P53	Methlick	A3	Formatine
54	P54	Slains	A3	Formatine
55	P55	Tarves	A3	Formatine
56	P56	Udny	A3	Formatine
67	P67	Meldrum	A3	Formatine
79	P79	Auchterless	A3	Formatine
80	P80	Fyvie	A3	Formatine
82	P82	Monquhitter	A3	Formatine
83	P83	Turriff	A3	Formatine
221	P221	Inverkeithny	A3	Formatine

5	P5	Echt	A4	Garioch
6	P6	Fintray	A4	Garioch
7	P7	Kinellar	A4	Garioch
9	P9	New Machar	A4	Garioch
12	P12	Skene	A4	Garioch
40	P40	Cluny	A4	Garioch
47	P47	Midmar	A4	Garioch
57	P57	Bourtie	A4	Garioch
58	P58	Chapel of Garioch	A4	Garioch
59	P59	Culsalmond	A4	Garioch
60	P60	Daviot	A4	Garioch
61	P61	Insch	A4	Garioch
62	P62	Inverurie	A4	Garioch
63	P63	Keithhall and Kinkell	A4	Garioch
64	P64	Kemnay	A4	Garioch
65	P65	Kintore	A4	Garioch
66	P66	Leslie	A4	Garioch
69	P69	Oyne	A4	Garioch
70	P70	Premnay	A4	Garioch
71	P71	Rayne	A4	Garioch
13	P13	Alford	A5	Marr
14	P14	Auchindoir and Kearn	A5	Marr
15	P15	Clatt	A5	Marr
16	P16	Glenbuchat	A5	Marr
17	P17	Keig	A5	Marr
18	P18	Kildrummy	A5	Marr
19	P19	Kennethmont	A5	Marr
20	P20	Leochel-Cushnie	A5	Marr
21	P21	Strathdon	A5	Marr
22	P22	Tough	A5	Marr
23	P23	Towie	A5	Marr
24	P24	Tullynessle and Forbes	A5	Marr
38	P38	Aboyne and Glen Tanar	A5	Marr
39	P39	Birse	A5	Marr
41	P41	Coull	A5	Marr
42	P42	Crathie and Braemar	A5	Marr
43	P43	Glenmuick, Tullich and Glengairn	A5	Marr
44	P44	Kincardine O'Neil	A5	Marr
45	P45	Logie-Coldstone	A5	Marr
46	P46	Lumphanan	A5	Marr
48	P48	Tarland	A5	Marr
68	P68	Monymusk	A5	Marr
72	P72	Cairnie	A5	Marr
73	P73	Drumblade	A5	Marr
74	P74	Forgue	A5	Marr
75	P75	Gartly	A5	Marr
76	P76	Glass	A5	Marr
77	P77	Huntly	A5	Marr
78	P78	Rhynie	A5	Marr
482	P482	Banchory-Ternan	A5	Marr
484	P484	Strachan	A5	Marr
3	P3	Drumoak	A6	Kincardine and Mearns
466	P466	Fettercairn	A6	Kincardine and Mearns
467	P467	Fordoun	A6	Kincardine and Mearns
468	P468	Garvock	A6	Kincardine and Mearns
469	P469	Laurencekirk	A6	Kincardine and Mearns
470	P470	Marykirk	A6	Kincardine and Mearns
471	P471	Banchory-Devenick	A6	Kincardine and Mearns
472	P472	Maryculter	A6	Kincardine and Mearns
474	P474	Arbuthnott	A6	Kincardine and Mearns
475	P475	Benholm	A6	Kincardine and Mearns
476	P476	Bervie	A6	Kincardine and Mearns
477	P477	St Cyrus	A6	Kincardine and Mearns
478	P478	Dunnottar	A6	Kincardine and Mearns
479	P479	Fetteresso	A6	Kincardine and Mearns
480	P480	Glenbervie	A6	Kincardine and Mearns
481	P481	Kinneff and Catterline	A6	Kincardine and Mearns
483	P483	Durris	A6	Kincardine and Mearns
1	P1	Aberdeen	A7	Aberdeen City
4	P4	Dyce	A8	Aberdeen City
8	P8	Newhills	A9	Aberdeen City
10	P10	Old Machar	A10	Aberdeen City
11	P11	Peterculter	A11	Aberdeen City

APPENDIX 3 ABERDEENSHIRE SLAUGHTER STATISTICS

	2007		%	2006		%	2005		%	2004		%	2003		%
	Scotland	N-E		Scotland	N-E		Scotland	N-E		Scotland	N-E		Scotland	N-E	
Prime Cattle	488,268	203,317	42	512,038	204,798	40	522,567	208,171	40	500,559	180,373	36	490,454	183,526	37
Cull Cows	46,126	1,492	3	35,445	359	1	1,747	6	0	0	0	0	0	0	0
Prime Lamb	1,432,054	585,218	41	1,435,553	539,341	38	1,282,451	415,405	32	1,349,943	409,651	30	1,319,351	400,407	30
Cull ewes	65,485	33,654	51	79,620	43,389	54	63,088	3,609	6	98,197	324	0	95,282	2,898	3
Pigs	745,110	33,752	5	685,233	35,422	5	693,462	35,387	5	725,152	350,848	48	737,581	395,184	54

APPENDIX 4 SKILLS AND CAPABILITIES CONSULTEES

Data:

LANTRA Sector Skills Agreement for Scotland

SAC Rural Policy Outlook

Scottish Funding Council databases

Mearns and Angus Services Ltd databases (Ringlink)

UCAS database

Consultees:

Ian Edwards; University of Aberdeen

Jim Marr; SAC Craibstone

Aberdeen College

Des Martin; Oatridge College

Mathew Currie; Smiths Gore re Planning to Succeed in Aberdeenshire

Peter Cook re Monitor Farms in Aberdeenshire

Peter Wood; Mearns and Angus Services Ltd

Jim Booth; SAOS Profit without Subsidy, Rural Leadership

Lorna Paterson; NFUS Farming for the Future

Mary Mitchell; LANTRA

Workshop:

Mike Scott; Ringlink

Jim Marr; SAC

Ian Edwards; Aberdeen University

Kay Diack; Diack Associates

Iain Clark; Clydesdale Bank

Bill Mackie; farmer

Phillip Sleigh; NFUS

APPENDIX 5 SCENARIOS WORKSHOP PARTICIPANTS

John Matheson, farm manager.

Peter Chapman, farmer and councillor

Cameron Ewen, farmer

Jim Cruickshank, farmer and British Potato Council

Sjirk Oosterhof, farmer

Philip Sleigh, farmer and NFUS regional chair

Bruce Ferguson, Aberdeen Grain Storage Ltd

Andrew Booth, The Store and farmer

Raymond Wight, Scotch Premier Ltd

Professor Bill Slee, MLURI

Steve Mackeson. Allathan Associates

Bryan Chalmers, Allathan Associates

David Ross, SAC Stonehaven

Ken Watt, SGRPID Thainstone

Stuart Young, Factor Dunecht Estate

APPENDIX 6 ACRONYMS AND GLOSSARY

ACSEF	Aberdeen City and Shire Economic Forum
BHS	British Horse Society
CAP	Common Agricultural Policy
CEEC	Central and East European Countries
CFA	Contract Farming Agreement
ESA	Environmentally Sensitive Area
EU	European Union
FMD	Foot and Mouth Disease
GAEC	Good Agricultural and Environmental Condition
GVA	Gross Value Added
GHG	Greenhouse Gas
Ha	Hectare
IACS	Integrated Administration and Control System
LANTRA	Land based sector training organisation for Scotland
LDT	Limited Duration Tenancy
LFA	Less Favoured Area
LFASS	Less Favoured Area Support Scheme
LMC	Land Management Contract
MTR	Mid Term Review of the CAP
NE	North East
NESAAG	North East Scotland Agriculture Advisory Group
NFUS	National Farmers Union of Scotland
NR	National Reserve
RSPB	Royal Society for the Protection of Birds
SAC	Scottish Agricultural College
SCBS	Scottish Beef Calf Scheme
SE	Scottish Enterprise
SEBG	Scottish Estates Business Group
SEPA	Scottish Environment Protection Agency

SFP	Single Farm Payment
SGRPID	Scottish Government Rural Payments and Inspections Directorate
SLDT	Short Limited Duration Tenancy
SNH	Scottish Natural Heritage
SRDP	Scottish Rural Development Programme
SRPBA	Scottish Rural Property and Business Association
QMS	Quality Meat Scotland