
Strategic review of the Scottish pig industry

Report
(Summary Extract)

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Preface

Following rapid increases in feed costs and disruption caused by Foot & Mouth Disease during 2007, the Scottish Government (SG) directed Quality Meat Scotland (QMS) to oversee a strategic review of the pig industry. SAOS assembled a team of specialists to undertake this task during the summer of 2008, and the results are presented in this report.

Each team member was responsible for a specific aspect of the review and separate chapters are presented for each of these – namely economics, processing facilities, health status, environment and farm performance. In each case, the material presented was gleaned from a mixture of desk-based research plus proactive engagement with appropriate stakeholders across the industry and in the SG.

For convenience, the overall conclusions and recommendations embedded in each of the chapters are presented at the start of the report in the form of a summary overview together with suggested action points for addressing the strategic priorities identified.

Earlier versions of the conclusions and recommendations were presented to members of the industry.



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1. SUMMARY AND RECOMMENDATIONS

1.1. Introduction

1. The pig industry represents a small yet significant component of the wider agri-food sector within Scotland, linking to both up and downstream activities. As such, it contributes to a number of stated Government objectives relating to overall economic growth, employment, sustainability, health and food affordability. However, as recognised by the commissioning of this Review, the sector has been subject to recent market shocks arising from global increases in grain prices and domestic constraints on movements and exports arising from the outbreak of Foot & Mouth Disease in England in 2007.
2. The Review confirmed the sector's objective to be a sustainable, market-oriented industry. The strategy for achieving this is one of seeking short-term stability whilst investing in future competitiveness through attention to opportunities for greater value-added and efficiency across the supply-chain. In general, this requires dialogue to be initiated and sustained between different arms of government and all parts of the industry, to improve mutual understanding of opportunities and constraints and to identify agreed responsibilities and aspirations.

1.2. Strategic perspective for the Scottish pig industry:

- A minimum herd size of 45,000 sows is required to maintain supply chain efficiency and effectiveness and to avoid further instability undermining longer-term prospects.
- The Scottish pig industry is important within the context of Scottish food particularly concerning economic growth, sustainability, health and affordability.
- Whole industry efficiency along its supply chains is the key driver for future profitability, investment and meeting climate change targets. Close industry co-operation, benchmarking and skills development will derive maximum benefit from its distinctive capabilities.
- Significant further added value can be developed in Scotland for pork products utilising the whole pig carcass, and investment is needed into innovative added value products that meet consumer needs.
- Scotland has made significant advances in pig herd health that should be used as a route to further improvements, disease eradication and establishment of a Scottish regional health zone.



1.3. Summary conclusions

1. Whilst its history of operating without production subsidies means that the pig sector is already market orientated and prepared to adapt to changing circumstances, market volatility and short-term weaknesses in supply-chains can undermine longer-term viability, particularly concerning investment. Specifically, a loss of critical mass can erode infrastructure capacity that, once gone, can be difficult to recreate in order to exploit subsequent market opportunities. That is, some infrastructure components are “lumpy” and scaling-up or down of production capacity occurs in “jumps” rather than smoothly. Any direct effect on output and employment of reduced production is amplified by multiplier and economy of scope linkages throughout the supply-chain, with knock-on effects for, amongst others, grain producers and merchants, input suppliers, veterinary services, hauliers and meat processors.
2. Given the current geographical and structural distribution of processing capacity, a temporary loss of critical mass would pose a genuine risk to production stability. Hence, whilst alternative structures can be envisaged, avoiding undue disruption in the short to medium-term requires the retention of existing infrastructure. This implies a minimum threshold production volume of 20,000 finished pigs per week from a national breeding herd of 45,000 sows. As an internal industry figure, such a target is compatible with a market orientation by seeking short-term stability to permit longer-term development.
3. In the longer-term, a sustainable pig industry rests on an ability to retain and enhance competitiveness, mainly by deriving benefit from distinctive capabilities. This means a focus on efficiency and delivering market value from a closely co-operative supply chain: whole industry efficiency along its supply chains is the key driver for future profitability, investment and meeting environmental targets. The Review identified a number of potential opportunities for adding-value and realising production efficiencies throughout the chain, in particular with respect to farm benchmarking, enhanced herd health status and new product development.
4. In the first instance, achieving a desired minimum production volume and subsequent longer-term development will entail dialogue between all parts of the supply-chain and different parts of Government to improve mutual understanding of aspirations, capabilities and opportunities; moreover, to engender an optimistic outlook that becomes a driver for essential investment into the industry. However, within the general call for better, proactive interaction and communication throughout the supply-chain and across Government, a number of related but specific action points may be used to direct collective efforts.



2. ACTION POINTS

1. First, the strategic fit of the pig sector with a number of stated government objectives regarding the agri-food sector in Scotland should be acknowledged. As with other parts of the industry – and already articulated by the task force – whilst the industry acknowledges its own role in delivering success, proportionate public support should be offered to aid both adjustment to short-term market shocks and desired longer-term investment. **Action: SG to respond to Task Force recommendations.**
2. Second, whilst some relevant work is already in progress, the accuracy and comprehensiveness of official data relating to the pig sector should be verified, to improve industry confidence in any analysis. This relates partly to economic data but more immediately to location and movement data relevant to animal health measures. **Action: SG and Industry to review and improve collection, maintenance and usage of official data.**
3. Third, farm-level benchmarking activities should be encouraged in order to pursue further cost savings, particularly with respect to sow replacement practices and health and biosecurity practices. This means explicit inclusion of Scottish pig enterprises within existing initiatives such as monitor farms, on-line benchmarking and planning to succeed. **Action: SG, QMS and Industry, together with farm consultants/advisors, to review and improve position of pig sector within current provision of farm business and advice.**
4. Fourth, benchmarking activities should also include reference to environmental performance, particularly with respect to greenhouse gas emissions and diffuse water pollution. This means explicit attention to carbon footprinting and nutrient management, with both needing increased funding for applied research and technology transfer. **Action: SG, QMS and Industry, together with farm consultants/advisors and research bodies, to review and improve funding and operation of applied environmental research and technology transfer relevant to pig production and processing - with a view to drafting an environmental action plan for the sector.**
5. Fifth, farm-level investment needed to comply with increasingly stringent regulatory controls, such as NVZs prescriptions, should be encouraged through more generous grant aid. **Action: SG to review grant aid available under revised State Aid rules for on-farm infrastructure required to enhance environmental performance.**
6. Sixth, the high health status of the national herd should be protected and enhanced through a Disease Control and Elimination Group to promote, plan and co-ordinate health measures. These should include surveillance and logistical support, but also improved herd health recording and mapping of all pig locations and movements. **Action: A Disease Control and Elimination Group should be established to include input from Scottish Government, SAC Veterinary Services and SAC Veterinary Epidemiology Group, Wholesome Pigs Scotland, Quality Meat Scotland, Scotlean and Scottish Pig Producers.**



7. Seventh, benchmarking activities should also be undertaken at the processor-level, to identify potential cost-savings and to promote the benefits of alternative management styles, particularly lean management. **Action: SG, QMS and Industry, together with business consultants/advisors, to review and improve position of pig sector within current provision of business and advice.**
8. Eighth, given that exploiting opportunities for cost-savings and market gains requires appropriate skills, benchmarking activities should also extend to the recruitment, retention and training of staff at all levels throughout the supply-chain, in order to better exploit. **Action: SG, Sector Skills Council and Industry to review and improve provision of training and career promotion within industry.**
9. Ninth, interest in retaining and increasing added-value within Scotland should be encouraged through support for marketing and R&D activities to improve carcass utilisation. In particular, opportunities for new product development and waste recovery should be explored. **Action: SG, QMS and Industry to review and improve funding of product and market development funding.**
10. Tenth, innovative and ambitious processors seeking to invest in new products and markets should be actively encouraged through public funding. Particular encouragement should be offered to smaller firms, to exploit niches and increase market outlets across the sector. **Action: SG to review sector's share of funding, for example through Regional Selective Assistance or Processing & Marketing Grants, and to invite applications.**
11. Eleventh, echoing previous work in England and Wales, all of the above should be viewed within a formal value-chain analysis (VCA), to identify specific areas for practical improvement along the supply-chain and to emphasise the benefits of lean management and of enhancing the forward and backward flow of information along the supply-chain. **Action: SG, QMS and Industry to identify and fund suitable VCA.**
12. Finally, twelfth, notwithstanding aspirations to build a Scottish brand, budgetary constraints and the nature of the overall market suggest that closer collaboration on a selective basis with BPEX should be considered as a means of achieving critical mass in, for example, marketing and lobbying activities. **Action: QMS and Industry to review merits of closer co-operation with counterparts outwith Scotland.**

The analysis and recommendations underpinning these Action Points are presented in detail later but are summarised for convenience in the next section.



3. SECTION SUMMARIES AND RECOMMENDATIONS



3.1. Economic and employment contribution

1. Pig production represents a small yet important part of Scottish agriculture, with strong linkages tying it closely to other parts of the agricultural and food sector and ensuring relevance to a number of stated Government aspirations regarding economic growth, employment, sustainability, health and affordability.
2. The sector's contributions encompass the value of observed output and employment on pig enterprises themselves plus their knock-on effects to other parts of the supply-chain and wider economy. Although subject to data limitations and some assumptions, multiplier analysis suggests its contributions are of the order of £130m for output and 1,400 for employment, plus £23m for income and £51m for value-added.
3. Whilst refinement of both the underpinning data and the individual multiplier estimates, plus quantification of economy of scope effects, could improve the accuracy of these contribution figures, the effort required could be disproportionate relative to the degree of improvement in accuracy achieved. Greater practical rewards are likely to be gained through proactive dialogue to improve mutual understanding between all arms of Government and parts of the industry with the aim of strengthening supply-chain resilience and value-added.
4. That is, it is important to focus not on the absolute size of economic and employment contributions but on their sustainability. This entails analysis of supply-chain dynamics and capabilities, to identify constraints and opportunities and to achieve a strategic fit with both Government aspirations and market realities.
5. Specifically, whilst there may be no "right size" for a market oriented sector, rigidities and threshold effects in supply responsiveness can lead to short-term inefficiencies as production under or over-shoots demand in the classic "pig cycle". Although such market swings may even-out over the long-term as structural adjustment takes place, the transition path can be unnecessarily uncomfortable. Moreover, instability tends to undermine the confidence needed for investment and can lead to a smaller sector and less value-added than would otherwise be achieved.
6. For example, a loss of critical mass can erode infrastructure capacity that, once gone, can be difficult to recreate in order to exploit subsequent market opportunities. Given the current geographical and structural distribution of processing capacity in Scotland, a temporary loss of critical mass would pose a genuine risk to production stability.
7. Hence, whilst alternative supply-chain structures can be envisaged and the pursuit of further efficiencies and value-added (as discussed in other parts of this report) is desirable, avoiding undue disruption in the short to medium-term in order to secure longer-term contributions requires the retention of existing infrastructure.



3.2. Pig processing facilities

1. During the course of this Review, it has been confirmed that Vion intend to take control of the activities of Grampian Country Foods in Scotland and elsewhere in the UK. At time of writing their detailed intentions are unknown.
2. Since the Broxburn plant is currently so central to the fortunes of pig processing in Scotland, and for the purpose of making recommendations as to how that industry can be made more sustainable, it is assumed that Vion will build on the structure currently in place. Their reputation proceeds them which augers well.
3. It should also be recognized that the major issue for pig producers of late has been one of price for their livestock. Their profitability has been severely affected by increases in feed ingredients and other utilities such as electricity, fuel, etc.
4. The industry needs to establish the Scottish Government's attitude to a sustainable pig industry. Currently, the UK Government appears to have embarked on the path of relying on imports to feed the UK consumer rather than providing food security for pig meat or, indeed, most other agricultural produce. Apart from providing the element of security, the benefits of promoting the rural economy will provide the base for home industry and regional foods.
5. The Processing Industry must be encouraged to invest, with every support available being fully explored. Improved efficiency will be an integral result for a successful outcome of this review.
6. The report recommends that consideration be given to a Scottish Value Chain Analysis (VCA). The producer and processor relationship involving Scottish pigs is good, although slightly fragmented from time to time; while there was a definite mistrust displayed, particularly from producers, of the motives of the retailers. While retailers proclaim a loyalty to the Scottish industry, some of their subsequent actions leave these open to question. A VCA would provide an opportunity for all to get around the same table and develop a better understanding of the problems encountered by each part of the chain. The industry needs to face up to the major multiples and develop a relationship that will promote loyalty to the Scottish product. The best way to do this must be by dialogue.
7. This is a very exciting industry to be involved with. But it requires those employed in it to be very enthusiastic, innovative, dedicated and energetic. In other parts of the UK, this was very evident at Cranswick plc and their results seem to confirm that their management team, employee motivation and morale provide part of the reason for their success. Staff feel involved – one of the principles essential to the Lean Management process at company level advocated in the Review. It is recommended that further advice be taken as to how the process could be “sold to employers”. It would most certainly seem to have been of benefit to those pork operators who have employed the process to date e.g. Dalehead Food (now Tulip), George Adams, Davies and Davies.



8. One of the most pressing needs for the industry is the recruitment of suitable staff. This is true at all levels, be they craft, supervisory, technical, marketing or management. During this Review, it has been advised on numerous occasions that the industry is not attracting suitable people. As far as craft workers are concerned, the sector has been relying heavily on staff from east European countries for a number of years. Due to improving opportunities in their own country and with the weakening of the pound sterling against the euro, those employees are now returning home and will create a difficult replacement job. We need to recruit and train our own people – not simply craft but supervisory, technical and management. The most pressing of these disciplines is craft – those whose skill in slaughtering, boning or trimming will capitalize on the efforts to maximize the yield of usable material from the pig. At the moment, little funding is available in Scotland, unlike other parts of the UK. We need to encourage our Sector Skills Council to promote the opportunities within the industry and seek Government support to train them. Again, suggestions that funding for modern day marketing techniques would help considerably to support the industry in its efforts. It is strongly recommended that favourable consideration is given to a Review of all training opportunities and the provision of the necessary funding to meet these requirements.
9. Maximization of gross margin is essential - every aspect of the process must be fully examined to confirm that:
- Maximum income is being realized
 - It is being produced in the most efficient and economical manner.

This requires ongoing control measures to be in place to monitor and report the results on an appropriate timescale. To enable the process to be set up correctly, the help of Lean Management procedures may be appropriate, and it is recommended that consideration be given to the concept, once its aims are fully understood; while there is an initial cost, the payback can be quite substantial. Pump priming funds should be considered. Benchmarking through previous RMIF channels should also be considered. The other essential view to be applied to the business is that of a carbon footprint establishment. Apart from the environmental considerations, help in setting standards and targets would assist in the control of some of the most costly overheads the business has to contend with. There is plenty of support for this from various sources and it is recommended that these be pursued. It was most encouraging that so much interest was demonstrated in the questionnaire directed at Category 2 slaughterhouses. This should be encouraged.

10. Another buyer of some substance in the market place would be beneficial, not only for producer prices, but to retain Scottish product in Scotland and provide a range of goods that could legitimately be promoted as Scottish, perhaps under a brand name already in existence. A range of confidential options have been provided which will need to be fully explored initially; there is a market for Scottish product, not being fully exploited.



11. Many of the comments made during the Review have advocated the development of more added value product from Scotland, particularly from the wholesale buyers. (see section on “views expressed on the future of the pork industry”). These should be considered by the industry.
12. Discussions have justified the need for a Scottish product development budget. The following points are relevant:
 - At the moment, the “middle” of the pig is being called upon to carry a disproportionate percentage of the total value of the pig, be they loins or back bacon.
 - The shoulder of the pig needs to provide considerably more innovative ideas as to how it can be offered to the consumer and in a more margin generating form.
13. There have been many suggestions during the Review relating to the development of the sausage trade. With the price of beef, chicken and lamb moving up fast, both the household menu and that of the catering establishment is looking for an acceptable alternative to provide menu options, a good sausage could provide this. Again, several suggestions indicated the potential for a typical Scottish sausage recipe, indeed with a major multiple advocating a complete range of sausages
14. Alternative markets are needed for pork legs. With the demand for air-dried product in Europe, this review did not find anybody in Scotland tackling this potential outlet.
15. The Ready Meal market seems to be short of pork based options – opportunities seem to beckon.
16. Education is badly needed as to how to cook pork properly. The consumer needed to be reassured that trichinosis is not a disease that affects Scottish pigs and, therefore, pork does not need to be overcooked. They should also be educated to the fact that pork that is too lean is not as enjoyable an experience as that carrying a little fat cover. One suggestion received advocates setting up an Eating Quality Committee to try and address the subject.
17. Further investigation is recommended on supply to the Polish market in Scotland. A range of Scottish salamis may also provide an opportunity – the advice of a European Master Butcher would help to direct such a venture. Scotland currently depends on the importation of an increasingly wide range of delicatessen products.
18. Particular attention needs to be focussed on the bacon industry and the demise of its production in Scotland.



19. Many of the facts highlighted in his report, dealing with offals, fats and waste will be addressed in the recently awarded consultancy brief to look at the Fifth Quarter opportunities for the Scottish Red Meat Industry. Nevertheless, plant operators should satisfy themselves that they are maximizing the opportunities from their available raw material. For instance, market price increases for pig intestines, maws, heads, fats and manufacturing meat should all be fully exploited. The new opportunities for the disposal of waste products should all be followed up in an effort to see if they have an application for the plant operator, now or in the future.
20. It seems unfortunate that cull sows have to be transported some 400/500 miles for slaughter in England. Apart from the undesirable effects of this journey, both on the animals and the environment, more meaningful employment opportunities could be made available in Scotland. It is strongly recommended that a plant is encouraged to invest in sow slaughter facilities.
21. Promotion – QMS have successfully improved Scotland's perception of pork over the last few years. This is attracting new groups of consumers with little funding available for this work. Much of the growth has been in the age groups below 28. The strategy must be to invest in the consumers of tomorrow by increasing consumption, both now and in the future without alienating the existing consumer base. It is recommended that those efforts are directed at encouraging "pork" consumption and a developing processed foods sector.
22. It seems that much of the meat imported into Scotland does not carry the same assurances and safeguards demanded by regulation and employed by Scottish producers. Stricter control needs to be implemented and policed. Likewise, labelling should be more specific, providing the origin of the meat in addition to where it was packed e.g. slaughtered in Holland, packed in Scotland.
23. Scotland accounts for around 10/12% of the UK pig herd. In European terms, we are small players. The reasons for disengaging from BPEX are well known and, in principle, understandable. In the light of recent events, reassessment of that position might provide a stronger producer base with greater "clout" if adequate safeguards and maintenance of independence could be provided for Scottish interests. Re-established linkages could have benefits for both parties. There are concerns as to the ability to move Scottish pork into a premium niche; it does not enjoy differentiation opportunities in the same way as Scottish Beef. Funds available are (and likely to remain) insufficient for that task. The considerable efforts made by Scottish pig producers in improving their disease and welfare profile, while laudable, are not yet yielding the desired results in PR terms.



3.3. Scotland's pig health status

1. The high current health status of the national herd, relative to some competitors, represents a good opportunity for increasing the competitive advantage of the industry.
2. A Disease Control and Elimination Group should be established to promote, plan and coordinate potential regional and national disease elimination programmes. The Group should include input from Scottish Government, SAC Veterinary Services and SAC Veterinary Epidemiology Group, Wholesome Pigs Scotland, Quality Meat Scotland, Scotlean and Scottish Pig Producers.
3. Mapping of all known pig holdings and their disease statuses is essential in the planning of regional health improvements and in the risk analysis of disease introduction to units and areas.
4. Mapping will allow identification of regional health zones within which coordination of health improvements may be necessary.
5. The use of Herd Health Declaration Forms and openness regarding herd disease status is essential in the provision and sourcing of high health replacement breeding stock and in the disease mapping process. The use of such forms could be a basis for national herd health classification.
6. A national surveillance initiative for swine dysentery is necessary in order to identify the health status of all herds with respect to this disease.
7. The eradication of a relatively low prevalence disease such as sarcoptic mange from all commercial units might allow recognition of Scotland as a regional health zone within the UK. This might facilitate stricter control of pig movement into and within Scotland and decrease the risks of importation of other known enzootic diseases and possibly future (as yet unidentified) disease threats.
8. Legislative support for the control of pig movements (potential disease introduction) into regional health zones and near to higher health units would be necessary to safeguard planned health improvements.
9. Economic costing models for partial and total herd depopulation programmes should be refined to provide producers with accurate financial estimations of the benefits and pay-back times of such programmes.
10. Logistical support for regional elimination programmes in the form of dedicated off-site rearing facilities and identification of regular markets for weaners and light pigs would be necessary.



11. In order to maintain any achieved health status improvements, the biosecurity awareness and efficacy of control measures of individual units must be improved.
12. The adoption of more risk-based biosecurity protocols must be enforced, perhaps as part of existing assurance schemes or the Pig Herd Health Plan (PHHP).



3.4. Environmental footprint

1. The Scottish pig industry needs to keep a watching brief on plans to introduce some form of carbon accounting; this is a rapidly developing area. At this stage, the focus for any GHG emissions mitigation strategies should be consistent with profitable pig production.
2. The pig industry should consider creating an overarching environmental action plan to prepare for future targets on climate change (similar to the UK Milk Industry's Road Map). This should involve all sectors of the Scottish pig supply chain focusing on improving efficiency, which not only improves profitability but also reduces GHG emissions.
3. The proposed changes to NVZ Regulations create an opportunity to improve slurry/manure management systems. The target for the pig industry must be to turn slurry/manure into a resource and identify best practice with respect to its management and utilisation.
4. NVZs impose significant demands for capital, it is imperative higher environmental grant aid (State Aid) is secured to off-set the costs incurred by pig farms.
5. The industry needs to be more proactive to ensure technical and economic advice is available on best practice for the effective utilisation of pig slurry /manures. This may take the form of printed materials, training events, case studies, seminars, technical support and practical visits. It could also form part of the programme for any future Pig Monitor Farm.



3.5. Industry Benchmarking

1. The industry should set up a 'virtual monitor farm' where producers and industry stakeholders meet to share and discuss gathered information, most likely from several herds and other supply chain partners, particularly processors and linkages concerning carcass information with production systems. It would be relevant to set up a steering committee soonest to further develop this concept.
2. Producers need to re-evaluate and deepen their understanding of production processes and their true impact on cost efficiency and to know the varying financial value of key performance indicators. Deriving and setting production targets from valid data is the foundation to maintaining profitable output as producers and as an industry. It is recommended that industry benchmark figures for Scotland, variously ranked and compared with other countries be produced on a regular basis.
3. The industry should use a standard benchmarking system with a robust basis of calculation recommended to be in a simple format that allows benchmarking between farms of production performance data, and anticipates extending this principle to allow the effect of the health improvement programme to be assessed.

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