



Submission to the Agriculture and Food Policy Reference Group

**Prepared by the Australian Sheep Industry Cooperative Research Centre
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The contribution of the sheep industry to development of Australia may be less important now than it was in the 1950's and 60's but remains an essential component of many regional communities in the year 2005. The continuing contribution of the sheep industry to the prosperity of rural Australia depends on development and application of new technologies. The Australian Sheep Industry CRC plays an important role in coordinating a national program of research, education and extension involving many members of the sheep industry, researchers, academics and extension specialists from around the nation. Importantly, the Sheep CRC is the first major initiative to focus on the wool-meat interface and complexity of producing quality wool and meat within a single 'sheep' industry.

The following comments refer to the specific questions posed in the 'Issues Paper' (May 2005) prepared by the Agriculture and Food Policy Reference Group and deals largely with Part C of that document.

Future Operating Environment

- A major issue for the sheep industry is the increasing importance of lamb and mutton as a profit driver and a relative decline in the importance of wool. The Productivity Commission (2005) report annual average growth in mutton and lamb export value of around 10% between 1990 and 2003 compared to an annual decrease of 3% for greasy wool. While production of wool and meat are inextricably linked, there is a culture regarding wool and meat as separate industries when it comes to research, production and marketing. This approach will be to the long term detriment of sheep producers whether they specialize in fine wool or quality meat production.
- Declining terms of trade for the sheep industry make it essential for increased productivity to maintain profitability in the sector.

- Adoption of new technologies has traditionally been slow in the sheep industry and ways of accelerating uptake of research is a priority.
- The outlook for sheep meat continues to be strong and meat as a profit-driver is increasingly important in the sheep industry. Wool, however, remains an important component of profitable production and is likely to continue as a major profit driver for the Australian sheep industry.
- In both sheep meat and wool, Australia's ability to provide top quality produce and quality assurance should be features that are further developed to provide a competitive advantage in the international market.
- Traceability and product authenticity will become increasingly important for both wool and meat. Electronic identification offers the long term key to effective traceability. In the sheep industry, electronic ID will also facilitate accelerated genetic progress, more efficient production and the required segmentation of flocks for wool and meat production. It is likely that electronic ID will be important enabling technology for increased productivity gains in the sheep industry and form the basis for more rapid research adoption. Government support may be required to accelerate the adoption of this technology, but the long term gain for the sheep industry and for many sectors of rural Australia will be significant.

Supply Chains

- It is likely that supply chains will be increasingly important, particularly in the meat sector, and with relatively few domestic supermarket chains it is important that retailers do not abuse the market power that could develop with increased control of supply chain and pricing.

Education Skills and Labour

- The agricultural workforce is older than the workforce in general, and the sheep and beef industries have the oldest workforces in the agricultural sector (Productivity Commission 2005). In recent years we have seen the main undergraduate interest being in careers in the industries most profitable, productive and "high tech" (cotton, dairying, beef feedlotting, precision cropping, etc). The sheep industry is generally regarded as being traditional and one where there is no requirement for graduates as practitioners, consultants or researchers. Declining undergraduate numbers and pressure on the university system for large class sizes has resulted in no specialist training available for the sheep industry and little advocacy for careers and training in the sheep industry.
- The Sheep CRC has made a major contribution to revitalizing education and training in the Australian sheep industry. Small class sizes have made specialist courses in sheep and wool unattractive to major universities and the CRCs program of national coordination of undergraduate and vocational training

systems has created a critical mass that will ensure sustained improvement of education and training opportunities for the sheep industry.

- Post-graduate research programs offered through the Sheep CRC link industry with researchers and education providers. This approach to embed post-graduate training with industry needs is expected to make a positive contribution to the industry for many years to come.

Funding Research and Development

- The fact that sheep producers pay levies to two separate rural development corporations (Meat & Livestock Australia and Australian Wool Innovation) means that funding for “sheep” research often requires dual applications to the two corporations. While there is positive cooperation between the organizations, the twin RDC model does increase the complexity and amount of work required to secure and report on R&D activities. There is a good case for having a single research and development corporation covering the sheep industry.
- Through the flexibility of the CRC Programme, the Sheep CRC was established to focus on the wool/meat interface and issues common to wool and meat production such as parasitology, nutrition, and education and training. The CRC has served as a catalyst for a number of joint initiatives co-funded by CRC, MLA and AWI. While there is good cooperation between the wool and meat funding bodies, there is also complexity in dealing with two organizations, each with their own culture and operating systems.
- The CRCs have a strong focus on commercialisation of research and their performance is assessed against this criterion. This emphasis has accelerated the development of systems to evaluate economic impact and has involved considerable CRC investment. Models suitable for project evaluation are used in conjunction with whole industry models to assess economic impact. While building on evaluation tools used by the R&D Corporations, the Sheep CRC has developed new economic models for assessing whole of industry impact and these models will be of long-term benefit for policy development and R&D evaluation.

Technology Adoption

- There is a poor rate of adoption of new technology in the sheep industry. The reasons for low levels of adoption are not well understood.
- The most probable reason for slow adoption is dependence on labour intensive tasks to measure differences between animals and to implement management decisions. These tasks often also include good record-keeping and data management.

- Few new technologies deliver an immediate benefit and longer term profit drivers such as best practice genetic management and improved reproductive efficiency do not provide the immediate returns that often make technology adoption attractive.
- An already complex extension message is further complicated by the fact that there are often parallel messages covering technologies best suited to improved “wool” and “meat” production systems.
- The importance of managing sheep to get profit from both wool and meat is increasingly important. The approach by the Sheep CRC to develop management systems integrating both wool and meat production is seen as a positive step towards making it easier for sheep producers to adopt sheep production technology rather than technologies targeting specifically “wool” or “meat”.
- As indicated above, electronic identification coupled with advances in other technologies such as automatic drafting, walk over weighing and remote access to data collection devices offer significant opportunities for accelerated technology adoption in the future. These technologies make data collection less labour intensive and more accurate. The technologies also provide for automated implementation of decisions through computer directed drafting. It is likely that these new technologies will form the basis for developing a new generation of service providers and consultants able to provide cost-effective services of measurement, advice and management for the sheep industries. The Sheep CRC has invested considerable effort in developing and evaluating these new approaches to sheep management. While further research, development and education is required, the approach appears to hold great promise. It is an area where further investment may be important in accelerating productivity gains in the sheep industry.

Communications

- Efficient and effective communication in remote locations will be of vital importance to the sheep industry as it develops technology for monitoring and management of sheep under extensive grazing conditions. Reliable and cost effective ways of transferring data will be essential for efficient management and marketing of sheep and sheep products.

Bio-security and Quarantine

- Linking identification of live animals with their products of wool and meat will give Australia an advantage in international markets. Traceability in the sheep industry should be coupled with benefits associated with more effective management systems to justify the costs and obtain full value.

Rural Businesses and Communities

- The need to maintain profits through continuous improvement in productivity means larger properties and more efficient use of labour. It is likely that opportunities for service providers and consultants similar to the model used in the cotton industry will develop for the sheep industry. It is likely that this will represent an opportunity for new regional and rural businesses requiring high levels of technical skill and greater use of technology. To capitalize on these opportunities, communication and IT infrastructure will need to be developed and maintained in rural communities.
- It is possible that the new technologies developing for the sheep industry, including electronic identification for more sophisticated management will involve the development of a sophisticated service industry for the sheep industry comparable to that already in place for the cotton industry, beef feedlots, dairying, poultry production, etc. These developments of business opportunities for servicing and supporting a profitable and innovative sheep industry should be considered when setting priorities for future development programs.

References

Productivity Commission 2005, *Trends in Australian Agriculture, Research Paper*, Canberra