Foreword

The recent decline in the Australian sheep flock from 150 million to around 70 million has meant significant changes for many producers and the support industries. At a macro-economic level this change in one of Australia’s major broad acre industries has had no real impact on the Australian economy or world food and fibre supplies. However, for Merino breeders and for many people in the wool industry, the flock reduction has had very significant consequences.

Future expansion of the sheep industry will depend on sheep meat and wool production being more profitable than alternative forms of land use or being highly complementary to other components of the farming system. Sustained improvement in profitability relies on productivity increasing faster than the declining terms of trade and the ability to produce products of sufficient quality to rise above commodity pricing for meat and textiles.

In the case of sheep meat there have been impressive increases in productivity, mainly through genetic gain, and a simultaneous improvement in product quality. On the other hand wool has not achieved the same productivity gains as for sheep meat production and, although it has achieved major changes in terms of quality of the clip, through finer micron, this change has not led to increased price.

The theme for the Sheep CRC, and for this special edition, is transformation. Effectively this means upping the ante with respect to productivity gain and product quality. Genetic improvement is a primary driver of productivity gain and a key determinant of product quality. For this reason, the Information Nucleus was designed to integrate the latest genetic and genomic technologies with management systems in different environments and measurement of production and product quality. It has already exceeded expectations in delivering information on new traits that are difficult and expensive to measure and has provided the basis for developing predictions of breeding values based on genomic technologies. The benefits flowing from the Information Nucleus will include faster rates of productivity gain and better control of product quality.

Programs of education and training are essential if industry is to effectively use new knowledge and technologies. It is appropriate that this special edition also contains papers on the topic of education, training and adoption.

The process of peer-reviewing papers before publication in Animal Production Science provides an important check to ensure that future recommendations to industry are based on solid evidence.

The sheep industry is at an important and exciting point in its illustrious history with new technologies available to increase productivity gain and underpin quality development for wool and lamb. This special edition contains papers describing technologies that will contribute to the next stages of the sheep industry’s development and I would like to thank all who have contributed to the valuable research, its documentation, review and publication.

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