STEPHEN BARWICK

Steve Barwick graduated with Honours from Sydney University in 1972, and commenced work with NSW Agriculture at Glen Innes as a Livestock Officer (Sheep & Wool). Part of his duties was to run a lamb carcase grading trial with Professor Neil Yeates of the University of New England. He moved into research in 1974 and his carcase work became an MSc in 1979. He was promoted to Principal Research Scientist in 2009.

In 1985 Steve took up an AMLRDC overseas study award to do a PhD in genetics under Walt Harvey at Colombus, Ohio. While there he studied selection index theory under Frank Allaire, worked with Kreg Leymaster and John Keele on sheep data from USDA Clay Centre, and was fortunate to interact with Bruce Griffing, Sid Young and Charles Henderson, who was visiting Ohio State. The time spent in the US was instrumental in Steve realising his ambition was to utilise knowledge for the benefit of industry, and this was to prove the driver of his career.

Coming from a family background in sheep and cattle breeding, Steve was eminently suited to returning to AGBU, which he did in 1989. He became Associate Editor of the Journal of Animal Science, was Leader of NSW Agriculture's Beef Breeding and Evaluation Team, co-supervised PhD and other students, published 170 papers, and was an invited speaker and chairperson at numerous AAABG conferences. His more recent work included how to select to reduce greenhouse gas emissions in beef cattle simultaneously with making economic improvement, and how to select across as well as within breeds.

Perhaps the best known outputs of Steve's research are the BreedObject analytical software and web-based delivery systems for selection index construction and delivery that are used in all major Australian beef cattle breeds and in New Zealand, the UK, South Africa, Namibia and Argentina. The more than 80 indexes that are in regular use are calculated for 1.8 million seedstock in Australia, and 3.2 million internationally, affecting the breeding directions of cattle breeding world-wide. Steve's innovative leadership has been crucial to this transformation to performance-based decision making. He also instigated a facility for ranking animals for production systems internationally, encouraging semen and seedstock trade.

Steve's research has been pivotal to improving the efficiency, profitability and sustainability of Australia's livestock industries. He has led the research into beef cattle breeding objectives and selection indexes for the national and international application of BREEDPLAN genetic evaluation, and the resulting genetic gain has been calculated to be worth hundreds of millions of dollars to the beef industry. Steve's research and innovative leadership is a road map for the best use of new genetic technologies, and his developments are likely to be even more important in the years ahead.

In recognition of his outstanding achievements, the Association for the Advancement of Animal Breeding and Genetics is pleased to enrol Steve as a Fellow of the Association.