

ASSOCIATION FOR THE ADVANCEMENT OF ANIMAL BREEDING AND GENETICS

FELLOWS OF THE ASSOCIATION

“Persons who have rendered eminent service to animal breeding in Australia and/or New Zealand or elsewhere in the world, may be elected to Fellowship of the Association...”

Elected February 1990

R.B.M. Dun
F.H.W. Morley (deceased)
A.L. Rae
H.N. Turner (deceased)

Elected September 1992

K. Hammond

Elected July 1995

C.H.S. Dolling
J.R. Hawker
J. Litchfield

Elected February 1997

J.S.F. Barker
R.E. Freer

Elected June 1999

J. Gough
J.W. James

Elected July 2001

J.N. Clarke
A.R. Gilmour
L.R. Piper

Elected September 2005

B.M. Bindon
M.E. Goddard
H.-U. Graser
F.W. Nicholas

Elected September 2007

K.D. Atkins
R.G. Banks
G.H. Davis

Elected September 2009

N. Fogarty
A. Fyfe
J. McEwan
R. Mortimer
R. Ponzoni

HONORARY MEMBERS OF THE ASSOCIATION

“Members who have rendered eminent service to the Association may be elected to Honorary Membership...”

Elected September 2009

W.A. Pattie
J. Walkley

NEAL M. FOGARTY

Neal began his career in the sheep industry in 1964 as a university trainee in Wool and Pastoral Science at the University of New South Wales. At the completion of his studies he started work at Trangie Research Station as a Wool Development Trainee. He obtained his M.Sc. degree from the University of New South Wales in 1977 and his Ph.D. from the University of Nebraska, USA in 1981. His scientific standing and proficiency has been recognised by university colleagues through his co-supervision of post graduate students.



Neal's research career has been clearly focused on sheep meat research. He has long maintained an interest in sheep reproduction, maternal genetics, dual purpose sheep and the uptake of these findings by the lamb industry. One of Neal's earliest projects was concerned with the reproductive performance and health of Border Leicester sheep including studying the genetics of pneumonia. He conducted much of the early research on the genetic improvement of the Dorset Horn breed in Australia, particularly the relationship between pelvic size and dystocia which was, at the time, a significant industry issue. The development of the 'Hyfer' breed, a Dorset Merino cross infused with the Booroola gene, was another project in his research portfolio. The project focus was to supply the lamb industry with a sheep that bred all year round and was capable of producing a lot of lambs.

In 1995 Neal published a definitive review of genetic parameters for liveweight, fat and muscle measurements, wool production and reproduction in sheep. This review highlighted the extent and limitations of published information and outlined the requirements for future work on estimating genetic parameters. This work provided many of the genetic parameters that were fundamental to the early development of LAMBPLAN (and which are still used today).

Other projects including the diverse genotype experiment and elite lamb project in which Neal played integral roles successfully linked biology and genetics to production systems. Neal led and coordinated the national Maternal Sire Central Evaluation from 1997 which identified large amounts of genetic variation in maternal meat sheep (over \$40 gross margin/ewe/year in profitability). During 2006 and 2007, Neal, as a Program Leader, led the establishment of the Sheep CRC's Information Nucleus at 8 sites around Australia. The Information Nucleus, which will further accelerate genetic improvement into the future, is a fundamental resource for the Sheep CRC and Australian sheep industries. Neal's work over the past 40 years has contributed to the so-called 'Lamb Revolution' which saw the lamb industry transformed from a poorly profitable by-product of the wool industry with genetic merit based on show ring and visual assessment into a vibrant and highly profitable industry in its own right that embraces new technology which has dramatically improved productivity and consumer appeal.

Neal was listed as a member of AAABG on 31 October 1979; he contributed at least 30 papers to fourteen conferences including being an invited speaker on Meat Sheep for the 18th Conference in 2009. He served AAABG as a contributing member, referee and for the 12th Conference in Dubbo he was Vice President and a member of the Editorial Committee. Neal officially retired from NSW DPI in March 2008; since then he has continued to be involved in the sheep industry as a part-time Post-Retirement Research Fellow.

ALAN R. FYFE

Alan Fyfe is a purebred pig breeder from Yelmah Stud, Hamley Bridge in South Australia. He has had a major influence on the Australian pig industry serving the industry and its members selflessly and with distinction for many decades. Furthermore, he is a long standing member of AAABG including being on 1984 and 1995 organising committees and has been an advocate of genetic improvement in Australia and New Zealand.



Alan's generosity of spirit has seen him share his experiences with other breeders. His strong working relationships with SARDI, PIRSA, the University of Adelaide especially the Roseworthy Campus research and extension staff and the Animal Breeding and Genetics Unit at Armidale has included access to his herd's performance data and the practices he has implemented in his breeding program – willing sharing of intellectual property at no cost to others.

Alan has been a member of the SA Swine Compensation Fund Committee which advised on investment of funds to benefit industry and on choice of research projects. As a member of the Swine Compensation Funds' successor, the SA Pig Industry Advisory Group he, and colleagues, provide advice to the Minister for Agriculture, Food and Fisheries on property registration, industry codes of practice, vendor declarations and relevant regulations for the pig industry as well as research priorities. For many years he has contributed to industry policy and development via the SA Farmers Federation's Commercial Pig Section. In the mid 1980s, as inaugural Chairman, he played a pivotal role in establishing a boar testing facility, SABOR Ltd, with the aid of Swine Compensation funding. Subsequently Alan became Chairman and Director of the SABOR Artificial Breeding Centre Ltd based in Clare and has overseen its growth from a Government supported unit to a fully privatised, commercially viable pig AI centre marketing semen nationwide. His expertise in pig genetic improvement resulted in a consultancy to assess genetic merit of a NZ pig herd.

Over the years Alan moved from showing to embracing objective measurement, genetic evaluation systems and index selection with Yelmah's success as a national leader reflected in both live pig and semen sales to all Australian states. Alan has written papers on using PIGBLUP in the Yelmah herd; "Practical experience with PIGBLUP" for the Australasian Pig Science Association (APSA 1989), "Selection Program Implementation on the Farm" (AAABG 1984) and "Efficient use of Recording Systems" (AAABG 1988). Alan has also made his data available for research; for example Horst Brandt used the Yelmah data to estimate genetic correlations between purebred and crossbred performance and Tom Long used Yelmah as a case study for genetic and financial evaluations of commonly used breeding systems.

He was the first licensed PIGBLUP user, signing a contract in November 1989, and became a member of various Pig Genetics Consultative Groups which guided the development of PIGBLUP during the early to mid 1990s and again from 2001 until 2006. His stud Yelmah is part of the National Pig Improvement Scheme - the across herd genetic evaluation system in pigs. Alan was one of the founding members of this scheme. Alan is truly a servant leader, an innovator and early adopter of new genetic technologies.

JOHN C. McEWAN

John Colin McEwan grew up on a sheep and beef farm near Tokanui, Southland, New Zealand (NZ), part of the property his great grandfather settled and developed from native bush after emigrating from Islay Scotland. His family also developed a stud that was one of the earliest registered Romney flocks. He received a BSc(Hons) in biochemistry from the University of Otago in 1978. After a year teaching, he joined the Ministry of Agriculture and Fisheries (now AgResearch) as a technician at Woodlands in Southland. In 1985 he transferred to An Foras Taluntais (now Teagasc), Ireland. In 1986, he returned to Invermay, near Dunedin, where he has remained until present, rising through the ranks to the highest science level within AgResearch. John has been a major force behind many initiatives aimed at improving the genetic merit of livestock, particularly sheep, in NZ, Australia and globally.



Sheep Improvement Ltd (SIL) undertakes genetic evaluations for the NZ sheep industry. John's involvements include its establishment in 1999, designing the computational framework, writing much of the code and management. A national across-breed analysis (advanced central evaluation; ACE) was introduced in 2003 and currently involves around 4 million animals. In 2002 John was instrumental along with Neville Jopson in the establishment of the Central Progeny Test to evaluate industry sires and provide across breed linkage to underpin ACE. In the early 1990's, John recruited farmers to record parasite resistance traits, leading to the WormFEC breeding service. John developed a carcass trait genetic evaluation system in 1996 based on the InnerVision CT facility (a joint venture with Landcorp Farming Ltd). For both these services, John initially collected and checked the data, ran the genetic evaluations, and generated client reports. They have now been incorporated into SIL. Perhaps John likes the challenge of difficult-to-measure traits; he is currently turning his attention to feed efficiency and green house gas emissions.

John helped elucidate the Inverdale gene. He helped Landcorp to verify, map (using his own code) and select the 'Carwell' gene affecting *L. dorsalis* area, leading to the LoinMAX[®] test. John also helped to confirm and map a gene for muscling effects, with three Texel breeders, leading to the MyoMAX[®] test. John identified the region for microphthalmia, a recessive defect in NZ Texels resulting in blindness, using only 45 animals. This led the i-Scan[®] test. John's research also identified a region associated with a favourable combination of production traits and parasite resistance, leading to the WormSTAR[™] test. John's efforts in obtaining global co-funding were instrumental in NIH moving cattle to the top of its livestock sequencing priorities. A project sequencing sheep at a comparatively low depth (3x) was able to use cattle as an assembly guide, leading to an ovine 50k SNP chip. John also established and led the highly regarded bioinformatics group for AgResearch at Invermay during 2000-1. Other examples of John turning his hand to computational and analytical tasks include methods such as Peddrift (AAABG 1997), TIPS (AAABG, 2001) and MELD, the latter used for assembling the skim sequence of the sheep genome.

John has still found time and energy to contribute to the wider scientific community through societies, international committees, mentoring and co-supervising graduate and post graduate students from a variety of universities. He has been a member of AAABG since 1990, served as vice president for 1999-2001, and contributed as a reviewer, session chair and author (29 papers). The NZ Society of Animal Production awarded him their McMeekan Memorial Award in 2003. He has 51 refereed journal articles and over 200 other publications.

ROBERT MORTIMER

Robert grew up on the family farm “Rosedale” working in a family partnership with his brother (Ted) and father (Les) who was a passionate tractor driver. Les’s passion for wheat growing left an opening for the boys to develop their interest in sheep breeding without too much parental guidance. In 1969 the partnership expanded with the purchase of “Devondale” and Robert moved in with his new wife (Pam) to an undeveloped farm and the opportunity to start work on his own merino flock.



The story of how Robert tackled this challenge - “to start work on his own Merino flock” – is outlined in some detail on the Centre Plus website. What that story reveals, albeit written between the lines, are some of the traits that Robert, with assistance from family members and some like minds, bought to bear on the task (http://www.centreplus.com.au/about_us/our_story). These are fundamental to his achievements, and resonate with the traits that have characterised master breeders back to Robert Bakewell, and which underpin all effective animal breeding.

Those traits include: openness to new ideas and approaches coupled with careful assessment of all information and observations, extremely close and comprehensive observation and recording of performance, and very careful thought about what the animals are being asked to do. In short, sample wide diversity and choose the best (maximise selection intensity), assess carefully (heritability), target the right traits (breeding objective), and replace older, less effective ideas with better ones (optimise i/L). Anyone who has ever spoken to Robert about sheep breeding will recognise these traits, and the humble diligence and patience with which he applies them.

The outstanding example of how these traits have been expressed is the careful learning involved in applying BLUP methods to breeding Merinos: listening, thinking, adjusting, and being prepared to share that learning with anyone who cares to listen. In years to come this will be recognised as a pioneering achievement.

The other trait that Robert brings to his lifelong passion, and which he has clearly passed on both vertically and horizontally, is deep respect for all who are genuine and have something to offer. The Centre Plus philosophy is essentially open source innovation in real life, with no fuss or fanfare, and represents in very honest form the value that the diversity of human talents can add: many people contribute to the Centre Plus story on one way or another, and are in turn encouraged in their own sheep breeding or farming endeavours.

Robert’s contribution to industry development has included membership of a range of organisations focussed on the advancement of animal and Merino breeding, including the Federation of Performance Breeders, Industry Liaison Committees for the Q-Plus Research project, Macquarie CTSE site, the Dubbo AAABG Conference, Merinotech and Merino Benchmark.

Robert Mortimer is indeed a master breeder.

RAUL PONZONI

Raul Ponzoni has a B.Agric.Sc.(Uruguay) and in 1975 obtained his Ph. D. from the School of Wool and Pastoral Sciences, University of N.S.W., Australia supervised by Professor John James. Raul's international impact has no doubt been greatly assisted by his exemplary communication skills; he is fluent in oral and written English and Spanish with a good working knowledge of four other languages. From 1977 till 2002 he held positions of Senior Livestock Research Officer in the SA Department of Agriculture and Principal Research Scientist in the South Australian Research and Development Institute after which he joined his current organisation the WorldFish Center in Penang.



The outputs from Dr. Ponzoni's very distinguished and highly productive research in animal breeding and genetics impact at both scientific and industry levels. He is internationally recognised professionally bringing his un-doubted professional expertise to bear on genetic improvement in Australian industries including wool and sheep meat, beef cattle, alpacas, goats and abalone. More recently he has expanded this professional repertoire to fish breeding and genetics which includes dissemination of superior seed stock and promotion of integrated livestock and aquaculture systems for poverty alleviation in tropical environments.

Raul's scientific excellence has been acknowledged by his appointment as an Affiliate Associate Professor, University of Adelaide where he taught animal breeding and genetics while supervising post-graduate students. Numerous overseas consultancies in Uruguay, Brazil, Bangladesh and Lesotho plus his membership on an FAO Expert Panel on management of genetic resources are further evidence of his international standing. He presented invited papers and co-ordinated sessions on defining traits in breeding objectives and their associated economic values for sheep, goats and beef cattle at more industry focussed World Congresses on sheep and cattle. He wrote a booklet "Genetic improvement of hair sheep in the tropics" (1992,FAO) where his assiduousness produced an extremely clear guide on the essential principles of designing and conducting breeding programs.

In the 1980s Dr. Ponzoni was a key technical member of an Animal Production Committee (APC) Working Party examining the development of national performance recording schemes for wool and meat sheep to replace a number of State or University based and private systems. The Final Report to APC was a strong foundation on which Woolplan and Lambplan were developed. Features included a choice of traits in breeding objectives, choice of economic values including breeder specification and various combinations of characters which could be used to estimate overall genetic merit in dollars. These schemes provided options for breeders to submit pedigree records, age of dam, type of birth and management group for their sheep and have appropriate adjustments made. Quality assurance features included provision of test samples by the Australian Wool Testing Authority for round-robin trials of participating wool testing laboratories and regular processing of standard data sets by service providers. Woolplan subsequently evolved into Rampower and then MerinoSelect, a service offered by Sheep Genetics.

His outstanding work ethic is reflected by his publications: Books, Manuals and Proceedings (8), Scientific Literature (186 as senior or co-author), Other Reportings (62) with at least 6 in press, submitted or as drafts. AAABG has been enriched by Raul's involvement in all of our Conferences. He presented invited or contributed papers at 17 meetings and refereed papers for one Conference proceedings he does not appear to have attended. A Corresponding Member for the Inaugural Conference (1979) Steering Committee, he chaired the Editorial Committee (1984, Adelaide) and was on the 1987 Perth Conference Committee.