

## BRUCE TIER



After science studies at the Australian National University and service with the Department of Foreign Affairs, Bruce Tier completed a Bachelor of Agricultural Sciences at the University of Western Australia in 1980, majoring in Plant Breeding and Agricultural Economics subjects. Raised on a diet of logic puzzles at the family dinner table, Bruce became interested in computer science and programming early in his studies and insisted on including respective courses in his degree schedule, despite discouragement from the faculty. Bruce began his career at AGBU in October 1981, making him the longest serving staff member.

Affectionately known as “Dr. Thong”, Bruce was awarded a Ph.D. from the University of New England in 1999 and became a full professor in 2011. In his spare time, Bruce is an avid and competitive Bridge player at national level.

During his 34 years at AGBU, Bruce has played a pivotal role (together with Hans Graser) in the development and implementation of genetic evaluation schemes for Australian livestock. Indeed, Bruce more or less single-handedly devised, built and maintained the software engines driving genetic evaluation for beef (BREEDPLAN) and sheep (OVIS) and provided major inputs to schemes for pigs (PIGBLUP) and trees (TREEPLAN), among others. In this time, BREEDPLAN progressed from a multi-trait analysis of three traits to twenty-five or more traits and, for the larger breeds, millions of animals in the pedigree.

This expansion posed major computational challenges and would not have been feasible without Bruce’s analytical and programming skills which allowed him to develop his own, highly efficient strategies – unsurpassed worldwide – to cope with them. Currently, Bruce is implementing the next generation of BREEDPLAN and OVIS, incorporating genomic information through the so-called single-step method, having postponed retirement to do so. No doubt, he will deliver another Rolls-Royce of genetic evaluation schemes to put, yet again, cutting edge methodology for genetic improvement at the fingertips of Australian livestock producers.

Moreover, Bruce has an impressive record of scientific publications in refereed journals and has been highly active in disseminating research results at conferences. He first attended a AAABG meeting in 1984 and has been an author on 78 AAABG conference papers (until 2013), which speaks volumes for his involvement with the society. His key journal papers not directly related to genetic evaluation addressed diverse topics ranging from efficient REML estimation, fast calculation of inbreeding coefficients and gametic imprinting to one of the first studies on the use of multiple genetic markers.

Bruce has provided essential and substantial leadership in scientific research in a range of areas, both within AGBU and with collaborating institutions. For instance, he has been a key person in both the Beef and Dairy Collaborative Research Centres and served on the advisory board of the Australian Dairy Herd Improvement Scheme. Bruce has been instrumental in developing strategies to deal with the avalanche of genomic data in AGBU, and made contributions to problems of genome scans, haplotyping, genotype imputation and polled horn testing, to name a few.

Last but not least, Bruce's impact as a supervisor and colleague has been immeasurable. Known for his irreverence and critical thinking, he has been and is a great team player, willing to work with all sorts and unstinting with his time, advice and, where needed, hands-on assistance to anyone asking, may it be colleagues, students, visiting scientists or emeriti.

For his enormous contributions to animal breeding and quantitative genetics, reflecting brilliance paired with dedication, the Association for the Advancement of Animal Breeding and Genetics is delighted to elect Bruce Tier to a Fellowship of the Association.