

Association for the Advancement of Animal
Breeding and Genetics



**Proceedings of the
Twenty-third (23rd) Conference**

Armidale, New South Wales, Australia
27th October – 1st November 2019

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PRESIDENT'S MESSAGE

I wish you a very warm welcome to AAABG's Ruby Anniversary meeting, the 23rd conference in Armidale, NSW. When the steering committee behind the AAABG held the very first conference in Armidale in 1979, they might not have expected the organisation to still be going strong 40 years later. Since then, 22 conferences have been held in all Australian states and both the North and South Islands of New Zealand. While other organisations have sometimes struggled with memberships, all AAABG conferences have attracted substantial numbers of contributors and delegates, with regular participants from around the globe as well. This highlights how important it is to provide a great forum for communication amongst scientists, educators, students and service providers, who traditionally make up the bulk of attendees, ultimately to increase knowledge and foster ideas and collaboration.

This year, we also introduce an extended program which starts with a student workshop and ends with a program which will contain some talks of interest to breeders. Allowing students to meet each other before the conference, and obtain some wise words from educators and extension specialists, should improve their conference experience and provide some valuable insight for their future progression. Additionally, the attendance of breeders at AAABG has dropped off compared to early years. This is in part due to the increasing complexity of livestock breeding, making many talks less accessible to a general audience and leading to an increasing distance between many researchers and those who benefit from their work. We hope to encourage more breeder participation this year and that there will be plenty of mix and mingle during the last 1.5 days of the program.

This year also marks one of the most extensive droughts across large areas of Eastern Australia, with rainfall in the 2019 year to date the lowest on record for the New England-Northern Tablelands area. So, while we were hoping to dazzle you with some beautiful spring green at this conference, the reality is that conditions may still be very poor by the time delegates arrive, and high level water restrictions will be in place for Armidale. This is a timely reminder of the difficult conditions under which our livestock breeders and producers function, and I take off my hat to their resilience under these circumstances. In particular, I thank those breeders who are still able to welcome delegates to their properties on tours, and trust that delegates recognise the courage this must take.

The scientific program again reports a wide variety of research. The implementation of genomic selection is not without its challenges, but is becoming a more mature part of modern breeding programs. New technologies offer future opportunities, both in terms of novel phenotyping and techniques such as gene editing. These developments are combined with talks which touch on aspects important to effective implementation of breeding programs today in the livestock industries.

I wish to thank the sponsors who have supported the conference, and the willingness of both our local and overseas speakers to contribute to the conference program. I also thank staff at ASN (the event organisers), the committee who have helped organise the Armidale meeting, and Kathy Dobos for preparing this booklet. Thanks also go to reviewers of papers and the session chairs, as well as those involved in organising tours and assisting with the student program.

I trust you have an enjoyable conference.

Kim Bunter

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Papers in this publication should be cited as appearing in the Proceedings of the Association for the Advancement of Animal Breeding and Genetics (Abbreviation: Proc. Assoc. Advmt. Anim. Breed. Genet.)

For example:

Bowley F.E., Amer P.R. and Meier S. (2013) New approaches to genetic analysis of fertility traits in New Zealand dairy cattle. *Proc. Assoc. Advmt. Anim. Breed. Genet.* **20**: 37-40.

REVIEWERS and SECTION EDITORS

All papers, invited and contributed, were subjected to peer review by two referees. We acknowledge and thank those people listed below for their work in reviewing the papers (and apologise if we have inadvertently omitted any reviewer from the list).

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