

**ASSOCIATION FOR THE ADVANCEMENT OF  
ANIMAL BREEDING AND GENETICS**



**Association for the Advancement of Animal Breeding and Genetics**

**19<sup>th</sup> Conference**

**The University of Western Australia, Perth  
19<sup>th</sup> to 21<sup>st</sup> July 2011**

© Association for the Advancement of Animal Breeding and Genetics, 2011

All rights reserved except under the conditions described in the Australian Copyright Act 1968 and subsequent amendments, no part of this publication may be reproduced, stored in a retrieval system or be transmitted in any form, or by any means, electronic, mechanical, photocopying, recording, duplicating, or otherwise, without prior permission of the copyright owner. Contact the Committee of the Association for the Advancement of Animal Breeding and Genetics for all permission requests.

**ISSN 1328 - 3227**

Produced by:

Association for the Advancement of Animal Breeding and Genetics  
C/- AAABG Secretary, Dr K Munyard  
GPO Box U1987  
Perth WA 6845  
Australia

Internet web site: <http://www.aaabg.org>

## SPONSORS OF THE 19TH AAABG CONFERENCE

### SILVER SPONSORS



### BRONZE SPONSORS



SATCHEL

NAME TAGS



DATAMARS

### CONFERENCE DINNER



HILLSIDE MEATS – NARROGIN WA  
XYTOGEN PEDIGREE TEST

**Meat & Livestock  
Australia (MLA) is proud to sponsor**

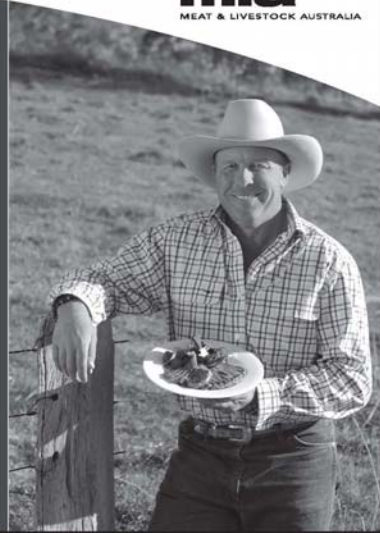
**19th Association for the  
Advancement of Animal  
Breeding and Genetics  
(AAABG) Conference**

**MLA and Australia's red meat industry**

MLA delivers world class services and solutions in partnership with industry and government.

We provide marketing and research services to Australia's red meat and livestock industry including livestock producers and lotfeeders, meat processors, wholesalers, foodservice operators, retailers, meat and livestock exporters.

**[www.mla.com.au](http://www.mla.com.au)**



**Achieve** a better world

BC+Y UNW720 GRICOS Provider Code 007263

As one of Australia's leading research universities, The University of Western Australia is committed to providing research solutions for some of the world's most pressing issues. If you're looking to succeed at international standards of excellence and contribute to the global community, consider UWA.  
**[uwa.edu.au](http://uwa.edu.au)**



**THE UNIVERSITY OF  
WESTERN AUSTRALIA**  
*Achieve International Excellence*

## **GENERAL INFORMATION**

### **Emergencies**

Please contact the reception desk of the University Club in case of emergencies

(Phone numbers +61 8 6488 4843)

### **Venue**

The conference will be held at the University Club of the University of Western Australia, M800, 35 Stirling Highway, Crawley, Western Australia 6009. All sessions will take place in the Auditorium, Banquet Hall, Room 1 and in Room 2 of the conference complex. Tea and lunches will be served in the Banquet Hall.

Phone +61 8 64884820

Fax +61 8 64881183

### **Registration**

The registration desk is located in the foyer of the UWA Club, and messages can be left with registration.

### **Sponsors**

Display areas for sponsors will be located in the Banquet Hall where delegates will congregate for morning & afternoon teas, lunches and the informal dinner on Tuesday night.

### **Internet**

Wireless internet is available in the UWA main complex. If delegates have their own wireless connection, then they can use this at no additional charge. Delegates who want to use the complex wireless internet should contact the registration desk who will allocate usernames and passwords.

### **Poster presentations**

The posters will be displayed and viewed in the Banquet Hall. Please display your posters as soon as possible on Tuesday morning after registration.

The official poster viewing will take place on Tuesday evening during the informal dinner from 6pm to 9pm. However, we encourage delegates to view the posters during breaks and lunch. The posters can stay on the boards until Thursday afternoon. However, there is a possibility that the Banquet Hall may be booked for another function on Wednesday evening. If so then posters need to be removed after 3:30pm on Wednesday afternoon. Delegates will be informed of any developments in this regard.

### **Oral presentations**

Please hand in your presentation to the technician for your venue during the break before your talk **AT THE LATEST**. A speaker corner is available where delegates can view their presentations as needed.

### **Social program**

#### ***Informal dinner***

The informal dinner will be held on Tuesday evening from 6pm to 9pm in the Banquet Hall of the University Club. We will start with drinks from around 6pm during the poster viewing session. Food will be served from 7pm to 9pm, and delegates can view the posters at their leisure.

#### ***Conference dinner***

The AAABG conference dinner will be held at the Oakover Estate in the Swan Valley on Wednesday evening. Buses will depart from the colleges and motel around 6:00pm. At the venue delegates will have the opportunity to taste the locally produced wines before dinner.

The dinner will be a 3-course meal at which presentation of the new AAABG Fellows will occur. A bit of light entertainment will be provided by an after-dinner speaker and some light fun conjured up by Janine King and Bronwyn Clarke.

Buses will return delegates to their accommodation after the dinner.

### **Breeders day**

A breeders day will be held on Thursday, 21<sup>st</sup> July 2011. This will be part of the AAABG conference and it will start at 10:30am with conference papers up to lunch time. Industry papers will be presented after lunch to showcase the genetic changes that have taken place during the last 10 years in the different farm animal species. This day will conclude at 16:30.



**Association for the Advancement of Animal Breeding and Genetics**

**CONFERENCE PROGRAMME**

**TUESDAY 19<sup>th</sup> JULY 2011**

<b>Welcome and opening of the 19<sup>th</sup> Conference Auditorium</b>		<b>8:30 – 8:45</b>
<i>Rob Delane (Director General – DAFWA)</i>		
<b>Animal Breeding and Selection</b>	<b>Plenary</b>	<b>8:45 – 10:15</b>
<i>Chair: Johan Greeff</i>	Auditorium	
Genetic architecture of complex traits		8:45 – 9:15
<i>M.E. Goddard</i>		
Animal breeding objectives: balancing productivity and ecological impact		9:15 – 9:45
<i>J.A.M. van Arendonk</i>		
Automated mate selection analyses		9:45 – 10:15
<i>B.P. Kinghorn</i>		
<b>Morning tea</b>	<b>Banquet Hall</b>	<b>10:15 – 10:45</b>
<b>Breeding Objectives</b>	<b>Concurrent</b>	<b>10:45 – 12:15</b>
<i>Chair: Mike Goddard</i>	Auditorium	
Experience in breeding objectives for beef cattle, sheep and pigs, new developments and future needs		10:45 – 11:15
<i>S.A. Barwick, A.A. Swan, S. Hermes, H.-U. Graser</i>		
Is breeding for profit still the answer?		11:15 – 11:30

<i>P. R. Amer</i>		
Preference-based approaches to deriving breeding objectives: application to sheep and plant breeding		11:30 – 11:45
<i>T.J. Byrne, P.F. Fennessy, K.F. Smith, P. Hansen, and P.R. Amer</i>		
Breeding objectives and breeding strategies for Philippine dairy buffaloes		11:45 – 12:00
<i>E.B. Flores and J.H.J. van der Werf</i>		
The impacts on selection for economic merit of including residual feed intake traits in breeding objectives and of having records available		12:00 – 12:15
<i>S.A. Barwick, M.G. Jeyaruban, D.J. Johnston, M.L. Wolcott, H.-U. Graser</i>		
<b>Cattle I</b>	<b>Concurrent</b>	<b>10:45 – 12:15</b>
<i>Chair: Wayne Pitchford</i>	Room 1	
Associations between residual feed intake on ad libitum pasture and restricted feeding in Angus cows		10:45 – 11:00
<i>R.M. Herd, P.F. Arthur and J.A. Archer</i>		
The effect of breed on the onset of puberty in heifers		11:00 – 11:15
<i>R.E. Hickson, C.C. Balcomb, K.R. Fraser, N. Lopez-Villalobos, P.R. Kenyon and S.T. Morris</i>		
Bull traits measured early in life as indicators of herd fertility		11:15 – 11:30
<i>N.J. Corbet, B.M. Burns, D.H. Corbet, J.M. Crisp, D.J. Johnston, M.R. McGowan, B.K. Venus and R.G. Holroyd</i>		
Effect of previous reproductive status of dam on the preadjustment of weaning weight for genetic evaluation in tropical beef breeds		11:30 – 11:45
<i>M.G. Jeyaruban, M.L. Wolcott, D.J. Johnston and H-U. Graser</i>		
The effect of imprinted genes on carcass traits in Australian Angus and Hereford cattle		11:45 – 12:00
<i>B. Tier and K. Meyer</i>		
Genetic parameters of post-partum reproductive status in beef cattle from northern Australia		12:00 – 12:15
<i>Y. Zhang, B. Tier and R. Hawken</i>		



<b>Statistical Genetics</b> <i>Chair: Ken Dodds</i>	<b>Concurrent Room 2</b>	<b>10:45 – 12:15</b>
Multivariate estimation of genetic parameters – quo vadis? <i>K. Meyer</i>		10:45 – 11:15
Effects of ascertainment bias when testing for polled in Australian beef cattle <i>J.M. Henshall, E. Piper and C.A. McDonald</i>		11:15 – 11:30
Performance of cross-validation and likelihood based strategies to select tuning factors for penalized estimation <i>K. Meyer, M. Kirkpatrick and D. Gianola</i>		11:30 – 11:45
Penalized maximum likelihood estimates of genetic covariance matrices with shrinkage towards phenotypic dispersion <i>K. Meyer</i>		11:45 – 12:00
Partitioning genetic variance in composite sheep <i>S.F. Walkom, A.P. Verbyla, F.D. Brien, M.L. Hebart and W.S. Pitchford</i>		12:00 – 12:15
<b>Lunch</b>	<b>Banquet Hall</b>	<b>12:30 – 13:30</b>
<b>Genetic Parameters I</b> <i>Chair: Andrew Swan</i>	<b>Concurrent Auditorium</b>	<b>13:30 – 15:00</b>
Genetic variation in growth patterns is associated with sow lifetime performance <i>K.L. Bunter and C.R.G. Lewis</i>		13:30 – 13:45
Survival analysis for the productive life of commercial sows <i>C.R.G. Lewis and K.L. Bunter</i>		13:45 – 14:00
Genetic parameters associated with adult ewe liveweight and body condition <i>G.H. Shackell, N.G. Cullen and G.J. Greer</i>		14:00 – 14:15
Heritability estimates for retail colour stability of lamb meat <i>S.I. Mortimer, R.H. Jacob, R.D. Warner, K.L. Pearce, D.W. Pethick, J.H.J. van der Werf, A.J. Ball and D.L. Hopkins</i>		14:15 – 14:30
Genetic relationships between objectively measured and subjectively assessed traits in the South African Dorper sheep breed <i>O.T. Zishiri, S.W.P. Cloete, J.J. Olivier and K. Dzama</i>		14:30 – 14:45

Piglet traits at birth are associated with their survival until weaning 14:45 – 15:00

*P. Tabuaciri, K.L. Bunter and H-U. Graser*

**Cattle II** **Concurrent** **13:30 – 15:00**  
*Chair: Bruce Tier* Room 1

Comparison of genetic parameters for calving difficulty in Angus, Charolais, Hereford and Limousin. 13:30 – 13:45

*M.G. Jeyaruban, D.J. Johnston and H.-U. Graser*

Observed trends in estimated breeding values in response to selection using visual muscle score in beef cattle 13:45 – 14:00

*B.J. Walmsley and W.A. McKiernan*

Milk and weight EBVs are associated with cow and calf gain during lactation but carcass EBVs are not 14:00 – 14:15

*S.J. Lee, K. Donoghue, M.L. Hebart and W.S. Pitchford*

The effective management of deleterious genetic conditions in cattle 14:15 – 14:30

*C.F. Teseling and P.F. Parnell*

Information empowers – Arthrogryposis multiplex in Angus Australia 14:30 – 14:45

*J.M. Allen and C.F. Teseling*

Managing deleterious genetic conditions at the herd level 14:45 – 15:00

*J.M. Allen, P.F. Parnell and C.F. Teseling*

**Sheep I** **Concurrent** **13:30 – 15:00**  
*Chair: John Karlsson* Room 2

Genetic frontiers in the development of 'clean, green and ethical' management systems for the extensive sheep industry 13:30 – 14:00

*G.B. Martin and J.C. Greeff*

Selection strategies for the genetic improvement of reproductive performance in sheep 14:00 – 14:30

*F.D. Brien, G.N. Hinch, J.H.J. van der Werf, D.J. Brown and A.A. Swan*

Factors affecting variability in feed intake of sheep with *ad libitum* access to feed and the relationship with daily methane production 14:30 – 14:45

*D.L. Robinson, S.L. Bickell, A.F. Toovey, D.K. Revell and P.E. Vercoe*

Genetic and phenotypic parameters for temperament in weaned lambs <i>J.E. Hocking Edwards, F.D. Brien, M.L. Hebart, G.N. Hinch, J. Hoad, K.W. Hart, G. Gaunt, M. Robertson, G. Refshauge and T. Bird-Gardiner</i>		14:45 – 15:00
<b>Afternoon tea</b>	<b>Banquet Hall</b>	<b>15:00 – 15:30</b>
<b>Genetic Parameters II</b> <i>Chair: Hugh Blair</i>	<b>Concurrent Auditorium</b>	<b>15:30 – 17:00</b>
Genetic (co)variances for yearling traits and reproduction in the South African Dohne Merino breed <i>J.J. Olivier and S.W.P. Cloete</i>		15:30 – 15:45
Different methods detected different loci involved in resistance to facial eczema disease of sheep <i>S. H. Phua and K. G. Dodds</i>		15:45 – 16:00
Genetic parameters for breech strike indicator traits and yearling production traits in Merinos <i>A.J. Scholtz, S.W.P. Cloete, J.J.E. Cloete, A.C.M. Kruger, J.B. van Wyk and T.C. de K. van der Linde</i>		16:00 – 16:15
Is there a relationship between temperament and internal parasite resistance in Merinos? <i>J.E. Newton, S. Dominik, J.M. Henshall and J.H.J. van der Werf</i>		16:15 – 16:30
Genetic variation and heritability of ostrich weight traits <i>A. Engelbrecht, S.W.P. Cloete, K.L. Bunter and J.B. van Wyk</i>		16:30 – 16:45
<b>Cattle III</b> <i>Chair: Steve Barwick</i>	<b>Concurrent Room 1</b>	<b>15:30 – 16:30</b>
Breeding Angus cattle that naturally emit less methane <i>R.M. Herd, K.A. Donoghue, S.H. Bird, R.F. Hegarty and P.F. Arthur</i>		15:30 – 15:45
The effect of duration and frequency of milk yield recording on lactation curve modelling <i>P.C. Thomson, E. Jonas, M. Abdelsayed, and H.W. Raadsma</i>		15:45 – 16:00
Breeding for extended lactation in Australian dairy cows: a		16:00 – 16:15

review

*M. Abdelsayed, H.W. Raadsma and P.C. Thomson*

Age at first calving and its relationship with other dairy traits in Holstein cattle in Australian herds 16:15 – 16:30

*M. Haile-Mariam and J.E. Pryce*

## **Gene Expression**

*Chair: Kylie Munyard*

**Concurrent**

Room 2

**15:30 – 17:00**

Characterisation in the New Zealand dairy industry of a polymorphism modulating the transcription rate of a chromosome domain encompassing *PLAG1* 15:30 – 15:45

*R.J. Spelman, T. Druet, W. Coppieters and M. Georges*

Expression of candidate genes for residual feed intake in beef cattle 15:45 – 16:00

*W. Al-Husseini, K. Quinn, R.M. Herd, C. Gondro, J.P.*

*Gibson, L.M. Cafe, P.L Greenwood and Y. Chen*

Recent ancestry for the 821del11 double muscling allele 16:00 – 16:15

*Brendon A. O'Rourke, P.L. Greenwood, P.F. Arthur and*

*M.E. Goddard*

Mapping of congenital contractural arachnodactyly in cattle 16:15 – 16:30

*I. Tammen, M.S. Khatkar, J.A.L. Cavanagh, P.A. Windsor,*

*P.C. Thomson and H.W. Raadsma*

GDF8 c.1232 G>A mutation effect consistent in an industry collected resource 16:30 – 16:45

*P.L. Johnson, T.C. Van Stijn, H. Henry and N.J. McLean*

Gdf8 c.1232 G>A frequency in commercially slaughtered lambs 16:45 – 17:00

*P.L. Johnson, T.C. Van Stijn, H. Henry, N.J. McLean and*

*K.G. Dodds*

**Drinks and Poster viewing**

**Banquet Hall**

**18:00 – 21:00**

**Informal dinner**

**Banquet Hall**

**19:00 – 21:00**

## WEDNESDAY 20<sup>th</sup> JULY 2011

<b>Sheep II</b> <i>Chair: Forbes Brien</i>	<b>Concurrent</b> Auditorium	<b>8:30 – 9:45</b>
Genetic correlation estimates for lamb carcass composition <i>S.I. Mortimer, A.A. Swan, R.H. Jacob, R.D. Warner, K.L. Pearce, D.W. Pethick, J.H.J. van der Werf, J.E. Hocking Edwards, G.H. Geesink, G.E. Gardner, A.J. Ball and D.L. Hopkins</i>		8:30 – 8:45
Pedigree Matchmaker: can it tell us more than just pedigree? <i>D.J. Brown, A.A. Swan and M.L. Mortimer</i>		8:45 – 9:00
Will Merino sheep with smooth bare breeches grow soft, white, photostable wool? <i>S. Hatcher, K.J. Thornberry and S. Gabb</i>		9:00 – 9:15
How do sheep breeders benefit from new technologies? <i>J.A. Sise, E.M. Linscott and P.R. Amer</i>		9:15 – 9:30
Results of an exploratory study of the application of agent-based modelling of sheep genetic progress using network theory <i>A. Reverter, S. Dominik, S. Field and R. Banks</i>		9:30 – 9:45
<b>Biotechnology I</b> <i>Chair: Sonja Dominik</i>	<b>Concurrent</b> Room 1	<b>8:30 – 10:00</b>
The effect of telomere length variation on lifetime productivity traits in sheep <i>G.S. Nattrass, R.G. Banks and W.S. Pitchford</i>		8:30 – 8:45
Quantitative real-time PCR revealed differentially expressed genes between high and low residual feed intake Angus cattle <i>Y. Chen, K. Quinn, R.M. Herd, P.F. Parnell and P.F. Arthur</i>		8:45 – 9:00
Use of snp chip technology for improved utilisation of livestock genetic resources in developing countries <i>K. Marshall</i>		9:00 – 9:15
Using the GeSNP algorithm to quality control and prioritize differentially expressed genes from comparative genomics <i>Y. Li, N. Andronicos, A. Ingham, P. Hunt, R. Windon, W. Barris and A. Reverter</i>		9:15 – 9:30
Accuracy of SNP imputation using a multi-tiered genotyping approach in dairy cattle <i>M.S. Khatkar, G. Moser, B. Hayes and H.W. Raadsma</i>		9:30 – 9:45

Principal component analysis in a population of Brahman bulls genotyped with 50k SNP chip revealed a genetic structure <i>M.R.S. Fortes S. Bolormaa L.R. Porto Neto. R.G. Holroyd and A. Reverter</i>		9:45 – 10:00
<b>Morning tea</b>		<b>10:00 – 10:30</b>
<b>The John Vercoe Memorial Lecture</b> <i>Chair: Heather Burrow</i>	<b>Plenary</b> Auditorium	<b>10:30 – 11:00</b>
Beef translational genomics: lessons from the literature <i>A.L. Van Eenennaam</i>		10:30 – 11:00
<b>Genomics</b> <i>Chair: Heather Burrow</i>	<b>Concurrent</b> Auditorium	<b>11:00 – 12:15</b>
Beef cattle genetic evaluation in the genomics era <i>D.J. Johnston, B.Tier and H.–U. Graser</i>		11:00 – 11:30
Effect of relationship and age structure between training and validation set on the accuracy of genomic breeding value prediction using genomic BLUP <i>M. Erbe, F. Seefried and H. Simianer</i>		11:30 – 11:45
The relative importance of information on unrelated individuals on the prediction of genomic breeding values <i>S.A. Clark, J.M. Hickey and J.H.J. van der Werf</i>		11:45 – 12:00
A kernel method for genome-wide selection using haplotypes <i>G. Moser, M.S. Khatkar and H.W. Raadsma</i>		12:00 – 12:15
<b>Maternal Efficiency (Sheep)</b> <i>Chair: Andrew Thompson</i>	<b>Concurrent</b> Room 1	<b>11:00 – 12:00</b>
Merino ewes with higher breeding values for fatness and muscling have improved maternal efficiency <i>M.B. Ferguson, B.L. Paganoni, K.L. Kennedy and A.N. Thompson</i>		11:00 – 11:15
Selection for superior growth advances the onset of puberty in Merino ewes <i>C.A. Rosales Nieto, M.B. Ferguson, C.A. Macleay, J.R. Briegel, G.B. Martin and A.N. Thompson</i>		11:15 – 11:30
The potential value of genetic differences in liveweight loss		11:30 – 11:45

during summer and autumn in Merinos ewes differs with production environment

*J.M. Young, M.B. Ferguson and A.N. Thompson*

Adult Merino ewes can be bred for live weight change to be more tolerant to climate change 11:45 – 12:00

*G. Rose, A. Kause, J.H.J. van der Werf, A.N. Thompson, M.B. Ferguson and J.A.M. van Arendonk*

## **Lunch**

**Banquet Hall**

**12:30 – 13:30**

## **Genomics – Sheep**

*Chair: Daniel Brown*

**Concurrent Auditorium**

**13:30 – 14:45**

Optimizing sheep breeding programs with genomic selection

*J.H.J. van der Werf, B.J. Horton and R.G. Banks*

13:30 – 14:00

The value of genomic selection for stud and commercial merino rams

*S. Dominik, J.H.J. van der Werf and R.G. Banks*

14:00 – 14:15

The importance of population structure on the accuracy of genomic prediction in a multi-breed sheep population

*H.D. Daetwyler, K.E. Kemper, J.H.J. van der Werf and B.J. Hayes*

14:15 – 14:30

Use of genomic information to estimate breeding values for carcass traits in sheep

*A.A. Swan, D.J. Brown, B. Tier, and J.H.J. van der Werf*

14:30 – 14:45

## **Sheep III**

*Chair: Bronwyn Clarke*

**Concurrent Room 1**

**13:30 – 15:00**

Effects on lifetime reproductive performance of phenotypic selection for fleece weight, fibre diameter, body weight and related selection indexes. II. Selection group x environment interaction.

*L.R. Piper, A.A. Swan, and H.G. Brewer*

13:30 – 13:45

Different mature ewe sizes require different stocking rates and lamb slaughter weights to maximise whole-farm profit

*A.J. Kennedy, M.B. Ferguson, G.B. Martin, A.N. Thompson and D.J. Pannell*

13:45 – 14:00

The mobilisation of fat in response to adrenaline is greater in Merino ewes with higher breeding values for coefficient of

14:00 – 14:15

variation of fibre diameter <i>M.B. Ferguson, J.R. Briegel, A.N. Thompson and G.E. Gardner</i>	
Use of automatic feeder data for activity studies in sheep <i>E. Jonas, E. Webster, P.C. Thomson and H.W. Raadsma</i>	14:15 – 14:30
Does the lamb birth weight response to mid pregnancy shearing differ in two breeds of disparate size? <i>P.R. Kenyon, H.T. Blair and C.M.C. Jenkinson</i>	14:30 – 14:45
The necessary paradigm change in quantitative genetics <i>R.G. Beilharz</i>	14:45 – 15:00
<b>Helen Newton Turner Oration Auditorium</b>	<b>15:30 – 16:00</b>
<b>Ordinary General Meeting Room 1</b>	<b>16:00 – 17:00</b>
<b>Buses depart from Colleges to Conference dinner at the Oakover Estate in the Swan Valley</b>	<b>18:00</b>

### THURSDAY 21<sup>st</sup> JULY 2011

<b>Genomics - Dairy Cattle</b> <i>Chair: Mark Henryon</i>	<b>Concurrent Auditorium</b>	<b>9:00 – 10:00</b>
Choice of parameters for removal of inflation in genomic breeding values for dairy cattle <i>B.L. Harris, D.L. Johnson and R.J. Spelman</i>		9:00 – 9:15
Implementation of genomics in Australian dairy cattle <i>G.J. Nieuwhof, M. Haile-Mariam, K.T. Beard, K.V. Konstantinov and B.J. Hayes</i>		9:15 – 9:30
Accuracy of genomic selection for residual feed intake and 250-day liveweight in dairy heifers using high density (630k) SNP <i>J.E. Pryce, J. Arias, P.J. Bowman, K.A. Macdonald, G.C. Waghorn, Y.J. Williams, W.J. Wales, R.J. Spelman and B.J. Hayes</i>		9:30 – 9:45
Optimising multistage dairy cattle breeding programs with regard to genomic selection <i>V. Börner and N. Reinsch</i>		9:45 – 10:00



<b>Biotechnology II</b> <i>Chair: Richard Spelman</i>	<b>Concurrent</b> Room 1	<b>9:00 – 10:00</b>
Towards a comprehensive recombination map of hotspots in sheep <i>C. Massault, J. Henshall, C. Gondro and J.H.J. van der Werf</i>		9:00 – 9:15
Imputation of single nucleotide polymorphism genotypes in a crossbred dairy cattle population using a reference panel <i>D.L. Johnson, R.J. Spelman, M.K. Hayr and M.D. Keehan</i>		9:15 – 9:30
Single nucleotide polymorphisms in the bovine leptin gene and their association with carcass and efficiency traits, and endocrine profiles, in female Angus cows <i>M. Laurence, J.M. Accioly A.L. Barnes, D. Blache, N.D. Costa , F.M. Jones, E.J. Speijers and W.S. Pitchford</i>		9:30 – 9:45
Association between SNP intensity data and growth and meat yield traits in sheep <i>G.M. Payne, M.E. Goddard, J.C. McEwan, M.A. Black and K. G. Dodds</i>		9:45 – 10:00
<b>Morning tea</b>	<b>Banquet Hall</b>	<b>10:00 – 10:30</b>
<b>Industry I (Breeders Day)</b> <i>Chair: Dawson Bradford</i>	<b>Plenary</b> Auditorium	<b>10:30 – 12:10</b>
Increasing uptake of genetic technologies across the beef value chain <i>H.M. Burrow and R.G. Banks</i>		10:30 – 11:00
Progress in implementation of a beef information nucleus portfolio in the Australian beef industry <i>R.G. Banks</i>		11:00 – 11:20
Genetic progress in Australian young sire programs: a model for increasing the rate of genetic improvement <i>A.J. Ball, R.B. Banks, D.J. Brown and S.R. Field</i>		11:20 – 11:40
Ram breeding in New Zealand two decades after the introduction of exotic sheep breeds <i>H.T. Blair</i>		11:40 – 12:10

<b>Lunch</b>	<b>Banquet Hall</b>	<b>12:30 – 13:30</b>
<b>Breeders Day</b> <i>Chair: Alex Ball</i>	<b>Auditorium</b>	<b>13:30 – 14:30</b>
Genetic changes in Australian dairy herds <i>Daniel Abernethy</i>		13:30 – 13:50
Genetic changes in Australian beef herds Angus - <i>Carel Teseling</i> Limousin - <i>Alex McDonald</i>		13:50 – 14:10 14:10 – 14:30
<b>Afternoon tea</b>		<b>14:30 – 15:00</b>
<b>Breeders Day</b> <i>Chair: Phil Vercoe</i>	<b>Auditorium</b>	<b>15:00 – 16:15</b>
Limitations to uptake of breeding technologies in the Wool Industry <i>Geoff Lindon</i>		15:00 – 15:20 15:20 – 15:40
Genetic research and changes in South African sheep flocks <i>Schalk Cloete</i>		15:40 – 16:00
Genetic changes in Australian sheep flocks <i>Sam Gill</i>		
Summary <i>Rob Banks</i>		16:00 – 16:15

**Posters Viewing  
Tuesday evening (18:00-21:00)**

**Banquet Hall**

Genetic, phenotypic and environmental correlations between footrot and fleece traits in sheep

*M. Abdelsayed, P.C. Thomson and H.W. Raadsma*

Four week repeatability of daily and one hour methane production of mature merino wethers fed *ad libitum*

*S.L. Bickell, D.L. Robinson, A.F. Toovey, J.P. Goopy, R.S. Hegarty, D.K. Revell and P.E. Vercoe*

Genetic and environmental parameters of milk production and milk composition in South African Merinos

*S.W.P. Cloete, M.A. Snyman and A.J. Scholtz*

Use of residual feed intake as an indirect selection trait for reduction of methane emissions in grazing beef cattle

*D.J. Cottle*

QTL analyses of beef taste panel data

*N.G. Cullen, C.A. Morris and H.V. Henderson*

The expression of genes encoding lipid storage proteins is correlated with intramuscular fat percentage in Brahman steers

*N. De Jager, N.J. Hudson, A. Reverter, R. Barnard, L.M. Cafe, P.L. Greenwood and B.P. Dalrymple*

Carcass quality of two year old steer progeny of Angus heifers divergently selected on rib fat estimated breeding values and subjected to two levels of nutrition pre-weaning

*M.P.B. Deland, K. Copping, J.F. Graham and W.S. Pitchford*

The effect of subcutaneous fat, muscle and body weight during mating on fertility in Merino and Border Leicester x Merino lambs

*K.W. Hart and J.C. Greeff*

Genetic diversity in Alpacas: can inbreeding explain the high prevalence of congenital defects?

*F.C. Jackling, J.L. Vaughan, M.E. Goddard and B.R. Appleton*

Opportunities for genetic management of the retail colour stability of lamb meat

*R.H. Jacob, S.I. Mortimer, D.L. Hopkins, R.D. Warner, and M.F. D'Antuono*

Fluctuation in ewe liveweight during periods of restricted nutrition is influenced by sire

*S.E. John, M.B. Ferguson, G.E. Gardner and A.N. Thompson*  
Analysis of udder health in dairy ewes

*E. Jonas, P.C. Thomson, H.W. Raadsma*  
Does dam age, ewe birth rank and sex of a co-twin affect a ewe's lifetime performance?

*P.R. Kenyon, L.M. Cave, H.T. Blair, N. Lopez-Villalobos and G.B. Nicoll*

Functional genomics of estimated breeding value for eye muscle depth in sheep

*L.J.A. Kogelman, N.S. Watson-Haigh, H.N. Kadarmideen, J.W. Kijas, T. Vuocolo, K. Byrne, H. Oddy, G.E. Gardner, C. Gondro and R.L. Tellam*

Genetic variation in growth and the optimisation of snp molecular markers for parentage assignment in pasture-based crossbred sheep

*A.E.O. Malau-Aduli, A. Kashani, S. McCammon and A. Smolenski*

Constraints associated with the improvement of animals through breeding as perceived by poor livestock keepers of west africa

*K. Marshall and M. Ejlersten*

Variation in merino wethers for growth and carcass traits

*S.J. Martin, C.A. Wilson, M.J. Moses, R. van de Ven and D.L. Hopkins*

Reproduction traits in Holstein cows: Towards the development of a genetic evaluation system for cow fertility

*C.J.C. Muller, J.P. Potgieter, O.T. Zishiri and S.W.P. Cloete*

Exploring fertility traits other than calving interval for inclusion in a national genetic evaluation for South African Holstein cows

*J.P. Potgieter, C.J.C. Muller, S.W.P. Cloete, O.T. Zishiri and K. Dzama*

Genetic parameters for ostrich chick mortality to six months post hatch

*M.D. Wang, S.W.P. Cloete and K. Dzama*

## AAABG 19TH CONFERENCE PROGRAM - SESSIONS OUTLINE

TUESDAY 19 JULY		TUESDAY 19 JULY - concurrent sessions		TUESDAY 19 JULY - concurrent sessions	
Auditorium		Room 1		Room 2	
07:00 - 08:30	Registration				
08:30 - 10:15	Plenary Session 1				
10:15 - 10:45	Morning tea	10:15 - 10:45	Morning tea	10:15 - 10:45	Morning tea
10:45 - 12:15	Breeding objectives	10:45 - 12:15	Cattle I	10:45 - 12:15	Statistical Genetics
12:15 - 12:30	Poster Viewing	12:15 - 12:30	Poster Viewing	12:15 - 12:30	Poster Viewing
12:30 - 13:30	Lunch	12:30 - 13:30	Lunch	12:30 - 13:30	Lunch
13:30 - 15:00	Genetic Parameters I	13:30 - 15:00	Cattle II	13:30 - 15:00	Sheep I
15:00 - 15:30	Afternoon tea	15:00 - 15:30	Afternoon tea	15:00 - 15:30	Afternoon tea
15:30 - 17:00	Genetic Parameters II	15:30 - 17:00	Cattle III	15:30 - 17:00	Gene expression
18:00 - 19:00 *	Poster Viewing				
19:00 - 21:00	Informal Dinner * <i>time to be confirmed</i>				
WEDNESDAY 20 JULY		WEDNESDAY 20 JULY - concurrent sessions			
Auditorium		Room 1			
08:30 - 10:00	Sheep II	08:30 - 10:00	Biotechnology I		
10:00 - 10:30	Morning tea	10:00 - 10:30	Morning tea		
10:30 - 11:00	The John Vercoe Memorial Lecture				
11:00 - 12:15	Genomics	11:00 - 12:00	Maternal efficiency		
12:30 - 13:30	Lunch	12:00 - 13:30	Lunch		
13:30 - 15:00	Genomics - Sheep	13:30 - 15:00	Sheep III		
15:00 - 15:30	Afternoon tea	15:00 - 15:30	Afternoon tea		
15:30 - 16:00	Helen Newton Turner Oration				
16:00 - 17:00	AAABG Ordinary General Meeting				
18:00	Conference dinner - Depart for Oakover restaurant by bus				
THURSDAY 21 JULY		THURSDAY 21 JULY - concurrent sessions			
Auditorium		Room 1			
09:00 - 10:00	Genomics in Dairy cattle	09:00 - 10:00	Biotechnology II		
10:00 - 10:30	Morning tea	10:00 - 10:30	Morning tea		
10:30 - 12:30	Industry I				
12:30 - 13:30	Lunch				
13:30 - 14:30	Industry II				
14:30 - 15:00	Afternoon tea				
15:00 - 16:15	Summary				
16:15	CONFERENCE CLOSE				

# Notes

# Notes

# Notes