

ANIMAL PRODUCTION SCIENCE

CONTENTS Volume 61, Issue 17–18, 2021, 1745–1999

24TH CONFERENCE OF THE ASSOCIATION FOR THE ADVANCEMENT OF ANIMAL BREEDING AND GENETICS

2–4 NOVEMBER 2021, ADELAIDE, SOUTH AUSTRALIA

Preliminary material i–xv

Helen Newton Turner Medallist Oration 2019

Genetic evaluation in Merinos: the past and future opportunities

K. D. Atkins 1745–1750

Review

Within-breed selection is sufficient to improve terminal crossbred beef marbling: a review of reciprocal recurrent genomic selection

R. A. McEwin, M. L. Hebart, H. Oakey and W. S. Pitchford 1751–1759

Research Papers

Impact of missing pedigrees in single-step genomic evaluation

K. Meyer 1760–1773

Microbiome analysis of the skin of sheep that are resistant or susceptible to breech flystrike

J. C. Greeff, E. A. Paz, K. Munyard, A. C. Schlink, J. Smith, L. J. E. Karlsson, G. B. Martin and D. Groth 1774–1780

A method for implementing methane breeding values in Australian dairy cattle

C. M. Richardson, B. Sunduimijid, P. Amer, I. van den Berg and J. E. Pryce 1781–1787

Breed-adjusted genomic relationship matrices as a method to account for population stratification in multibreed populations of tropically adapted beef heifers

C. L. Warburton, R. Costilla, B. N. Engle, N. J. Corbet, J. M. Allen, G. Fordyce, M. R. McGowan, B. M. Burns and B. J. Hayes 1788–1795

Ultra-small SNP panels to uniquely identify individuals in thousands of samples

S. Dominik, C. J. Duff, A. I. Byrne, H. Daetwyler and A. Reverter 1796–1800

Genetic parameters of blood urea nitrogen and milk urea nitrogen concentration in dairy cattle managed in pasture-based production systems of New Zealand and Australia

I. van den Berg, P. N. Ho, M. Haile-Mariam, P. R. Beatson, E. O'Connor and J. E. Pryce 1801–1810

Evaluation of dominance in tropically adapted composite beef cattle

M. L. Facy, M. L. Hebart, H. Oakey, R. A. McEwin, G. I. Popplewell and W. S. Pitchford 1811–1817

Bayesian genome-wide analysis of cattle traits using variants with functional and evolutionary significance

R. Xiang, E. J. Breen, C. P. Prowse-Wilkins, A. J. Chamberlain and M. E. Goddard 1818–1827

Improving the accuracy of predictions for cow survival by multivariate evaluation model

M. Khansefid, M. Haile-Mariam and J. E. Pryce 1828–1836

Redefining residual feed intake to account for marbling fat in beef breeding programs

C. J. Duff, J. H. J. van der Werf, P. F. Parnell and S. A. Clark 1837–1844

Dentition can predict maturity in young Merino sheep

A. M. Bell, S. Dominik, D. Elks, G. Acton and J. Smith 1845–1855

Management tools for genetic diversity in an isolated population of the honeybee (*Apis mellifera*) in New Zealand

G. E. L. Petersen, P. F. Fennessy and P. K. Dearden 1856–1862

- Genetic parameter estimates for male and female fertility traits using genomic data to improve fertility in Australian beef cattle
B. S. Olasege, M. S. Tahir, G. C. Gouveia, J. Kour, L. R. Porto-Neto, B. J. Hayes and M. R. S. Fortes 1863–1872
- Growth, body composition and body wrinkle are favourably correlated with reproductive performance in 2-8-year-old Merino sheep
J. A. Chapman, M. L. Hebart and F. D. Brien 1873–1883
- Development of Angus SteerSELECT: a genomic-based tool to identify performance differences of Australian Angus steers during feedlot finishing: Phase 1 validation
B. C. Hine, C. J. Duff, A. Byrne, P. Parnell, L. Porto-Neto, Y. Li, A. B. Ingham and A. Reverter 1884–1892
- Genetic parameters of breech strike, neck wrinkles, dags and breech cover over the lifetime of crutched Merino ewes in a Mediterranean environment
J. C. Greeff, A. C. Schlink and L. J. E. Karlsson 1893–1904
- The use of Hereford sires over mature Angus dams can add value to Angus cattle herds
J. M. Pitchford, J. Jones, M. L. Hebart and W. S. Pitchford 1905–1912
- Genomic analysis of purebred and crossbred Angus cattle demonstrates opportunity for multi-breed evaluation
W. S. Pitchford, J. M. Pitchford, R. A. McEwin and R. Tearle 1913–1918
- ImmuneDEX: updated genomic estimates of genetic parameters and breeding values for Australian Angus cattle
A. Reverter, B. C. Hine, L. Porto-Neto, P. A. Alexandre, Y. Li, C. J. Duff, S. Dominik and A. B. Ingham 1919–1924
- Selection strategies for beef cow size and condition
R. E. Hickson and W. S. Pitchford 1925–1931
- Exploring genomic approaches to fast-track genetic gains in breechstrike resistance in Merino sheep
S. Dominik, A. Reverter, L. R. Porto-Neto, J. C. Greeff and J. L. Smith 1932–1939
- Impact of a multiple-test strategy on breeding index development for the Australian dairy industry
M. Axford, B. Santos, K. Stachowicz, C. Quinton, J. E. Pryce and P. Amer 1940–1950
- Proximity sensors provide an accurate alternative for measuring maternal pedigree of lambs in Australian sheep flocks under commercial conditions
B. Paganoni, A. van Burgel, C. Macleay, V. Scanlan and A. Thompson 1951–1957
- The impact of reference composition and genome build on the accuracy of genotype imputation in Australian Angus cattle
H. Aliloo and S. A. Clark 1958–1964
- Genetic parameters and trends for lamb survival following long-term divergent selection for number of lambs weaned in the Elsenburg Merino flock
C. L. Nel, A. A. Swan, K. Dzama, A. J. Scholtz and S. W. P. Cloete 1965–1981
- The Modular Breeding Program Simulator (MoBPS) allows efficient simulation of complex breeding programs
T. Pook, C. Reimer, A. Freudenberg, L. Büttgen, J. Geibel, A. Ganesan, N.-T. Ha, M. Schlather, L. F. Mikkelsen and H. Simianer 1982–1989
- Single-step genomic evaluation of lambing ease in Australian terminal sire breed sheep
L. Li, P. M. Gurman, A. A. Swan and D. J. Brown 1990–1999