



Reference List of Published Outputs (2023)

Journal Articles

Avizheh, M; Dadpasand, M; **Dehnavi, E** and Keshavarzi, H (2023). Application of machine-learning algorithms to predict calving difficulty in Holstein dairy cattle. *Animal Production Science* 63(11) 1095-1104 doi.org/10.1071/AN22461

Bunter, K L; Brown, D J; Gurman, P M; Li, L and **Swan, A A** (2023). The genetic and phenotypic associations between lamb survival outcomes and other traits recorded at lambing. *Animal Production Science* 63(11) 1148-1159 doi.org/10.1071/AN23160

Cowling, W A; Castro-Urrea, F A; Stefanova, K T; **Li, L; Banks, R G**; Saradadevi, R; Sass, O; Kinghorn, B P; Siddique, K H M (2023). Optimal contribution selection improves the rate of genetic gain in grain yield and yield stability in spring canola in Australia and Canada. *Plants* 12(2) 383 doi.org/10.3390/plants12020383

Li, L, Gurman P M; Swan, A A and **Tier, B** (2023) Approximating prediction error variances and accuracies of estimated breeding values from a SNP–BLUP model for genotyped individuals. *Animal Production Science* 63(11) 1086-1094 doi.org/10.1071/AN23027

Meyer, K (2023). Reducing computational demands of restricted maximum likelihood estimation with genomic relationship matrices. *Genet Sel Evol* 55, 7 doi.org/10.1186/s12711-023-00781-7

Moore, K L; Johnston, D J and Grant, T P (2023). An investigation into potential genetic predictors of birth weight in tropically adapted beef cattle in northern Australia. *Animal Production Science* 63(11) 1105-1112 doi.org/10.1071/AN23123

Nel, C L; Steyn, Y; Gilmour, A R; Waters, D; Clark, S A; van der Werf, J H J; **Swan, A A**; Dzama, K and Cloete, S W P (2023). Reaction-norm analysis of neonatal lamb mortality suggests heritability varies with cold-stress: an example in the Elsenburg Merino selection lines. *Animal Production Science* 63(11) 1017-1030 doi.org/10.1071/AN22464

Sharif-Islam, M; Henryon, M; van der Werf, J H J; Chu, T T; Wood, B J and **Hermesch, S** (2023). Comparing pedigree and genomic relationships to control inbreeding in optimum-contribution selection restricting the number of sires in pigs. *Animal – science proceedings* 14(7) 877-878 doi.org/10.1016/j.anscip.2023.09.060

Conference Papers

25th Conference of the Association for the Advancement of Animal Breeding and Genetics, Perth, Western Australia, 25-28 July 2023:

Alexandri, P; Walkom, S F; Stewart, S; McGilchrist, P; Steel, C and **Brown, D J** (2023). Merits of using new intramuscular fat measurement technologies in genetic evaluation of Australian lamb. pp. 302

Aliloo, H; **Walmsley, B J**; Donoghue, K A and Clark, S A (2023). Detection of signatures of selection in Australian beef cattle. [pp. 194](#)

Brown, D J; Gurman, P M and Swan, A A (2023) Genetic benchmarking of Maternal sheep flocks using genomic testing. [pp. 43](#)

Bunz, A M G; Bunter, K L; Harper, J; Morrison, R S; Luxford, B G and **Hermesch, S** (2023). Genotype by trait-specific season interactions for farrowing rate and average piglet birthweight, [pp. 115](#)

de las Heras-Saldana, S; Gurman, P M; Swan, A A and Brown, D J (2023). Genetic parameters and lambda values for post-weaning production traits in Merino sheep, [pp. 318](#)

de las Heras-Saldana, S; Suarez, L A; **Wahinya, P K; Bunter, K L and Brown, D J** (2023). Identification of climate-resilient Merino sheep using satellite images, [pp. 394](#)

Dehnavi, E; Swan, A A; Smith, J L; Bird-Gardiner, T L; Burbidge, G and **Brown, D J** (2023). The value of research and industry flocks for predicting breech strike resistance in Australian Merino sheep, [pp. 342](#)

Dehnavi, E; Swan, A A; Ramsay, A M M; Burbidge, G and **Brown, D J** (2023). Preliminary genetic parameters for flystrike and its association with production traits in Australian Merino sheep, [pp. 354](#)

Donoghue, K A; Rippon, R; **Wolcott, M L; Moore, K L**; Clark, S A and **Walmsley, B J** (2023). Age at puberty, days to calving and first parity return to oestrus in Australian temperate beef breeds, [pp. 55](#)

Ferdosi, M H; Masoodi, S and Khansefid, M (2023). Heritability and repeatability of paternal haplotype recombination rate in beef cattle autosomes, [pp. 222](#)

Fitzgerald, P T; Clayton, E H; Donaldson, A J; **Brown, D J**; Oddy, V H and van der Werf, J H J (2023). Towards selecting for lower methane sheep, [pp. 178](#)

Granleese, T; Mortimer, S I; Atkinson, T; Refshauge, G; Bird-Gardiner, T; Haynes, F; **Brown, D J; Alexandri, P and Walkom, S F** (2023). Measured Goats in the Rangelands: An overview of a meat goat reference population, [pp. 230](#)

Gudex, B W; Williams, P J and **Walmsley, B J** (2023). Australian beef cattle breeding objectives, [pp. 103](#)

Gurman, P M; Gore, K P and Brown, D J (2023). Utility of pooled DNA samples for estimating a flock profile, [pp. 334](#)

Gurman, P M; Li, L; Jeyaruban, M G; Johnston, D J; Girard, C J and Swan, A A (2023). Validation of calving ease EBVs examining the impact of genetic groups and single-step on predictive ability, [pp. 378](#)

Hatcher, S; Robertson, S; **Brown, D J and Bunter, K L** (2023). Match birthweight ASBVs to flock fecundity for lamb survival, [pp. 134](#)

Hodge, M J; **de las Heras-Saldana, S**; Rindfleisch, S J; Stephen, C P and Pant, S D (2023). Genome wide association study and heritability estimates for ram semen traits, [pp. 282](#)

Jeyaruban, M G and Johnston, M G (2023). New module for prediction of reproductive traits EBV in BREEDPLAN, [pp. 59](#)

Johnston, D J; Ferdosi, M H; Connors, N K; Cook, J A; Girard, C J and Swan, A A (2023). BREEDPLAN single-step genomic evaluations delivers increased accuracies across all breeds and EBVs, [pp. 111](#)

Johnston, D J; Dayman, M; Grant, T P; Hubbard, K; Goodwin, K; Doughty, A K and **Cook, J A** (2023). Remote sensor collars measure age at puberty in tropical beef heifers in northern Australia, [pp. 246](#)

Keshavarzi, H; **Dehnavi, E** and Small, A (2023). Estimate the genetic parameters and analysis of culling reasons in Iranian Holstein dairy cattle, [pp. 314](#)

Le, S V; **de las Heras-Saldana, S; Alexandri, P;** Olmo, L; Walkden-Brown, S W and van der Werf, J H J (2023). Genetic diversity of domestic goats from Central Laos, [pp. 250](#)

Manzari, Z; Johnston, D J; Connors, H K and Ferdosi, M H (2023). Signatures of positive selection for scrotal circumference in three beef cattle breeds, [pp. 107](#)

McMillan, A J; Walkom, S F and Brown, D J (2023). Evolution of sheep breeds within LAMBPLAN and the rise of the Composites, [pp. 31](#)

Meyer, K (2023). Effects of selection and data truncation on estimates of genetic parameters obtained fitting a single-step model, [pp. 39](#)

Miller, S P (2023). Livestock breeding, where have we been and what lies ahead? [pp. 10](#)

Moghaddar, N; **Swan, A A** and van der Werf, J H J (2023). Multi-trait genome wide association meta-analysis of body weight, carcass composition and eating quality traits in Australian sheep, [pp. 270](#)

Moore, K L; Gurman, P M and Johnston, D J (2023). Application of an empirical approach for predicting accuracy for genomic evaluations, [pp. 146](#)

Moore, K L; Walkom, S F; Siddell, J P and Walmsley, B J (2023). Quantifying the linkage between genetics represented in the Southern Multi-Breed project and the wider Australian beef populations, [pp. 330](#)

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Mortimer, S I; Holman, B W B; Fowler, S M; Alvarenga, T I R C; Hopkins, D L; Egerton-Warburton, K L; Smith, J L; Hine, B C and **Swan, A A** (2023). Relationships of sire breeding values for Merino production traits with eating quality of lamb, [pp. 214](#)

Santos, D J A; Connors, N K; Gurman, P M; Ferdosi, M H; Miller, S P and Swan, A A (2023). Assessing the value of metafounders for genomic prediction in Australian Simmental beef cattle, [pp. 158](#)

Sharif-Islam, M; Henryon, M; van der Werf, J H J; Sørensen, A C; Chu, T T; Wood, B J and **Hermesch, S** (2023). A comparison between the use of pedigree or genomic relationships to control inbreeding in optimum-contribution selection, [pp. 190](#)

Smith, E G; **Walkom, S F; Brown, D J** and Clark, S A (2023). Fibre diameter variation as a measure of resilience in sheep, [pp. 63](#)

Vargovic, L; Moore, K L; Johnston, D J; Jeyaruban, M G; Girard, C J; Cook, J A; Torres-Vázquez, J A and Miller, S P (2023). Remodelling the genetic evaluation of NFI in beef cattle - Part 1: Developing an equivalent genetic model, [pp. 382](#)

Vargovic, L; Moore, K L; Johnston, D J; Jeyaruban, M G; Girard, C J; Cook, J A; Torres-Vázquez, J A and Miller, S P (2023). Remodelling the genetic evaluation of NFI in beef cattle - Part 2: Shortening the length of the feed intake test, [pp. 386](#)

Wahinya, P K; Brown, D J; Walkom, S F; Bird-Gardiner, T; Clarke, B E; Smith, J L and Swan, A A (2023). Preliminary evaluation of the impact of visual traits on lifetime ewe performance, [pp. 47](#)

Wahinya, P K and Ferdosi, M H (2023). Imputation accuracy for missing alleles in crossbred beef cattle, [pp. 162](#)

Walkom, S F; Alexandri, P; Connaughton, S; Gardner, G; Williams, A and Brown, D J (2023). Merits of using DEXA to measure lean meat yield for the genetic evaluation of Australian lamb, [pp. 306](#)

Walkom, S F; Duff, C J; Girard, C J and Moore, K L (2023). Longevity of reference populations in a trans-Tasman genetic evaluation: Review of the Angus Sire Benchmarking Program, [pp. 322](#)

Walmsley, B J; Moore, K L; Walkom, S F; Clark, S A; Granleese, T and Donoghue, K A (2023). Progress of the Southern Multi-Breed Resource Population: Hard-to-measure phenotypes to drive genomic selection, [pp. 310](#)

Waters, D L; van der Werf, J H J; Brown, D J; Walkom, S F and Clark, S A (2023). Validation of breeding values for robustness in Australian Merinos, [pp. 298](#)

Wolcott, M L; Johnston, D J; Jeyaruban, M G and Girard, C J (2023). Development of a new BREEDPLAN objective body composition EBV to allow selection to improve cow survival, [pp. 346](#)

74th Annual Meeting of the European Federation of Animal Science, Lyon, France, 26 August – 1 September 2023:

Brown, D J; Alexandri, P; Walkom, S F; Pethick, D W; McGilchrist, P; Stewart, S Pitchford, W S and Gardner, G E (2023). Objective carcass measurement from commercial supply chains contributing to genetic improvement p. 315

Payne, C E; Paganoni, B; Walkom, S F; Gardner, G E; and Brown, D J (2023). Genetic variation of new sheep traits measured by dual energy X-ray absorptiometry, p. 382

Smith, E G; Walkom, S F; Brown, D J and Clark, S A (2023). Defining resilience traits in sheep from fibre diameter variation of wool, p. 172

Walkom, S F; Brown, D J and van der Werf, J H J (2023). An Australian sheep genomic reference to meet the evolving breeding objectives of industry, p. 675

Wicki, M; Brown, D J; Gurman, P M; Raoul, J; Legarra, A and Swan, A A (2023). Combined genomic evaluation of Australian Merino and Dohne Merino sheep populations, p. 403