



APSA 2023 19TH BIENNIAL CONFERENCE

Australasian Pig Science
Association (Inc)

Sofitel, Brisbane, Australia

13th - 16th November 2023



Jo-Anne Harper



Improving pig survival with a focus on birthweight: a practical breeding perspective

Ms Jo-Anne Harper is Genetics Program Manager at Rivalea Australia, where she's involved in the management of genetics and breeding programs across the many sites within the company. In recent years Ms Harper has been undertaking a PhD aimed at improving progeny survival through genetic selection, more specifically looking at developing pre- and post-weaning survival traits and immune response phenotypes in pigs. Her main interest is making genetic improvements in economically important traits to improve productivity and efficiencies for commercial operations, along with understanding how to best manage the ever-changing genotype of the modern pig.

Survival of pigs is a key driver directly impacting profitability and animal welfare. Ms Harper's review explores the relationship between litter size and piglet birthweight and the detrimental impact this negative association has had on pig survival, along with genetic strategies implemented in breeding programs to improve survival. It is suggested that the primary effect of litter size on mortality was indirect, through the effects of litter size on individual piglet birthweights. For a successful selection program, combining the average piglet birthweight at the litter level and mortality data based on individual piglet records might yield the best response in pig survival.