caution must be taken not to develop dystocia problems. The preliminary results also suggest that improved survival could be achieved by direct selection for the trait.

The high heritability for survival was unexpected, and may be a consequence of the larger variation in birth type observed in the current study compared to sheep. Additionally the survival data is yet to be analysed using a more appropriate model for binomial data. The results could also be a function of the data if breeders did not submit complete kid mortality records.

The predictions for survival (Table 1) indicate that increasing survival could be accomplished by reducing litter size but this could have unfavourable consequences for weaning rate (as number of kids per doe joined). Future work will examine the relationship of birth weight with litter size and how selection to change these may influence weaning rates. Finally the results of this study suggest that kid survival in single, twin and multiple birth classes should be considered as separate traits and will also be investigated in future work.

## CONCLUSIONS

The higher than expected heritability for kid survival reported in this study suggests that if measurements of kid survival are collected, and the trait is given priority in the breeding objective, breeders will be able to improve the trait by selection. The genetic and phenotypic correlation between kid survival and birth weight has implications for future indirect selection, but with a risk of increasing the chance of dystocia. The results also indicate that litter size could contribute to kid survival and birth weight which will be further investigated.

## ACKNOWLEDGEMENT

This research was funded by Meat and Livestock Australia with gratitude to Sheep Genetics and the breeders contributing data to KIDPLAN.

## REFERENCES

Ball, A., Brown, D., Spiker, S., Field, S., Banks, R. (2001) *Proc. Assoc. Adv. Anim. Breed. Gen* **14:** 445.

Brien, F, Cloete, S, Fogarty, N, Greeff, J, Hebart, M, Hiendleder, S, Edwards, JH, Kelly, J, Kind, K, Kleemann, D (2014) *Anim. Prod. Sci.* **54:** 667.

Brown, D, Jones, R, Hinch, G (2014). *Anim. Prod. Sci.* **54**: 736.

Butler, D, Cullis, BR, Gilmour, A, Gogel, B (2009) *The State of Queensland, Department of Primary Industries and Fisheries.*

Hatcher, S., K. D. Atkins, and E. Safari. (2014) *J. Anim. Sci.* **87:** 2781.

MLA (2012) Australian Goat Industry RD&E Strategy – 2012. *Meat and Livestock Australia*.

Singh, D., Mishra, H., Singh, C., (1990) *Anim. Prod*. **51:** 559.

Snyman, M. (2010) *S Afr J Anim Sci* **40**: 54.

Walkden-Brown, S., Bocquier, F., (2000) *Proc. 7th International Conference on Goats* 389.

Zhang, C., Yang, L., Shen, Z. (2008) *Livest. Sci.* **115:** 73.

Zhang, C.-Y., Chen, S.-L., Li, X., Xu, D.-Q., Zhang, Y., Yang, L.-G., (2009) *Livest. Sci.* **125:** 60.