**Effect of parental genotypes and paternal heterosis on litter traits in crossbred goats**


ABSTRACT

The effect of parental genotype and paternal heterosis on litter size (LS), total litter birth weight (TLW) and average litter birth weight (ALW) was analysed utilizing data from a crossbreeding programme involving the exotic German Fawn goats and local Katjang goats in Malaysia. In this study, these traits were regarded as traits of the litter to consider the effect of service sire genotype. The results revealed that LS was significantly influenced by the genotype of sire. The genotypes of sire and dam had significant effects on TLW and ALW. Estimates of crossbreeding parameter showed significant and negative influence of paternal heterosis on TLW and ALW while there was no significant effect of paternal heterosis on LS. The results of this study stress the need to reconsider the use of local males in the tropics.



**Keyword:** Goats; Litter traits; Paternal heterosis; Service sire