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Effects of environmental factors on birth weights and weaning weights of West African dwarf goats under intensive and extensive management systems

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ABSTRACT

A study aimed at determining birth weight, pre-weaning mortality and weaning weight of 89 West African Dwarf kids consisting of 22 kids managed intensively and 67 kids managed extensively was conducted in 2008. Both systems of management were located in Abeokuta within the humid region of South West of Nigeria. The overall mean birth weight of kids under intensive management system was 1.55 ± 0.37 kg and higher than the estimate obtained from their counterparts under extensive management system by 0.46 kg which was 1.09 ± 0.10 kg. Mean weight at birth under intensive management system for single kids was heavier (1.74 ± 0.07 kg) than twin (1.27 ± 0.09 kg) or triplet (1.25 ± 0.22 kg) while under extensive management system, single kids was heavier (1.15 ± 0.16 kg) than twin (1.0 ± 0.13 kg) or triplet (1.10 ± 0.11 kg). The effect of type of birth on birth weight was significant ($P < 0.01$) with the indication that does under the extensive management system had higher type of birth (2.26 ± 0.16) compared to does under intensive management system (1.48 ± 0.13). Mean weaning weight under intensive management system was 5.47 ± 0.88 kg while under extensive management system was 4.71 ± 0.77 kg. Effects of parity, sex and season and type of birth were significant ($p < 0.001$) on weaning weight for both systems. Intensive system of production favoured higher birth weight and weaning weight while extensive system of production favoured higher multiple births.