

EFFECT OF BODY CONDITION SCORE ON THE REPRODUCTIVE PERFORMANCES OF LACTATING DAIRY COWS

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The body condition influences milk production, reproduction, and health of dairy cattle, which are directed by the partition of nutrients and body reserves. Hence, the effect of body condition scores (BCS) on reproductive performances of lactating dairy cows in *Bopaththalawa* NLDB farm was investigated. Forty lactating Friesian crossbred cows representing four production groups; high (>20 Lday⁻¹), fresh (yield 20-16 Lday⁻¹), mid (15-11 Lday⁻¹), and low (≤ 10 Lday⁻¹) in *Bopaththalawa* farm were randomly selected for the study. All experimental animals were reared in stall barns and milked two times per day. Cows were fed a total mixed ration twice a day before milking. Clean drinking water was supplied in *ad libitum* throughout the day. Three observers independently assigned a BCS using a five-point scale and BCS was described using the appearance of six regions of the cow (thurl, hooks, pins, tailhead ligaments, short ribs and sacral ligaments). According to the cow identification number, all data were updated in the cow cards daily. The number of inseminations and the first calving age were also recorded. Further, this study used data on BCS and reproductive parameters in 2016, of the same animals. Data were analyzed by correlation analysis using RStudio statistical software (R.4.0.3 version) and examined the relationship between BCS and reproductive performances. There was a significant ($p < 0.05$) negative correlation between BCS and the number of inseminations. Further, there was no significant ($p > 0.05$) relationship between BCS and age at first calving. In conclusion, if the BCS is higher, the number of inseminations needed for a successful pregnancy is less. The first calving age is not affected by the body condition score.

Keywords: Age at first calving, Milk production, Number of inseminations, Successful pregnancy.