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List of abbreviation

Abbreviation	Elaboration
BWT	Birth weight
CCBDF	Central Cattle Breeding and Dairy Farm
CI	Calving interval
DLS	Department of Livestock Services
F	Friesian
GP	Gestation period
HF	Holstein-Friesian
kg	Kilogram
L	Local
L/day	Litter/day
LP	Lactation period
MMT	Million metric ton
MPPD	Milk production per day
SE	Standard error

Abstract

The present study was carried with the recorded data of total 77 Local-Friesian crossbred dairy cows reared at Central Cattle Breeding and Dairy Farm (CCBDF), Savar, Dhaka. The data were used from the year of 2008 to 2019 for this study. The objective of this study were to determine the effect parity on gestation period (GP), lactation period (LP), milk production per day (MPPD), birth weight of calf (BWT) and calving interval (CI) and the relationship among the parities. The result indicated that he increasing GP, MPPD, BWT with increasing parity whereas the LP and CI were decreased with increasing parity. The resulted means of gestation periods of parity 4 (277.33±0.98 days) and parity 6 (269.56±5.75 days) were significantly interrelated to increase GP. In case of LP, it is also found that the mean value of parity 1 and parity 2 separately influenced parity 3, parity 4, parity 5 and parity 6 in significant manner. That means the LP was decreased in parity 1 following by parity 3, parity 4, parity 5 and parity 6. In same pattern parity 2 also put effect on other parity in LP. The mean value of calf birth weight at parity $1(22.61\pm0.35 \text{ kg})$ had notable effect on the mean value of BWT at parity 3 (24.51±0.46 kg) and parity 4 (25.21±0.75) to increase the BWT by parity number. The obtained result regarding MPPD also showed that the effect of parity which was increasing by parity number increasing. That also exposed the remarkable effect of parity 1, parity 2, parity 3 on parity 4, parity 5 and parity 6 sequentially in term of CI. That means the CI interval was decreased in parity 1 followed by parity 4, parity 5 and parity 6. Overall study conveyed the sense of a good reproduction and production performances of the cattle reared at CCBDF except a variation of obtaining maximum lactation period successfully. So, it is recommended that further more research work should be developed to identify the cause of short lactation period and to take essential measures to progress the condition.

Keywords: Cattle, CCBDF, Parity, Reproductive and productive traits