A Comparison of Productive and Reproductive Performance of Jersey and Jersey×Friesian Crossbred Cows of a Large Scale Dairy Farm in the Dry Zone, Sri Lanka

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Productive and reproductive performances are the economically most important parameters of dairy cattle industry. Breed performance comparison studies help to determine the most suitable genotypes for different conditions. This study was undertaken to compare the productive and reproductive performances of Jersey and Jersey×Friesian crossbred cows in an intensively managed dairy herd in the dry zone of Sri Lanka. Lactation length (LL), lactation milk yield (LY),305 days milk yield (305Y), daily average milk yield (DY), peak milk yield (PMY) and peak day (PD) were the productive parameters considered while services per conception (SPC), age at first calving (AFC), calving interval (CI), percentages of stillbirths (SB), percentage of abortions (AB) were collected as reproductive parameters from 924 cows (Jersey: n=342 and Jersey×Friesian crosses: n= 582).The means of different parameters for each breed were compared using a t-test and frequency data were compared using chi square test in the R programme and also SPC was analysed using Mann-Whitney U test in SPSS. The mean 305Y and LY of Jersey×Friesian crossbred cows (3560.77±1807.01L and 4347.93±1854.40L. respectively) were significantly ($p<0.05$) greater than Jersey cows (3231.26±1534.05L and 3937.92.94±1491.87L respectively). Jersey×Friesian crossbred cows showed a significantly ($p<0.05$) longer LL compared to Jersey cows (386.44±115.38 days vs. 368.15±102.46days, respectively). The highest DY was given by Jersey×Friesian crossbred cows (11.44±3.71L.) compared to Jersey cows (10.46±3.33L.) and also the mean PMY of Jersey×Friesian crossbred cows (22.76±5.45L) were significantly ($p<0.05$) greater than Jersey cows (21.10±3.96L). Jersey cows had a significantly ($p<0.05$) shorter calving interval (495.40±134.70 days) compared to Jersey×Friesian crossbred cows (513.35±136.58 days). Furthermore, PD, SPC, AFC, AB%, and SB% were not significantly ($p<0.05$) different between the two breeds. In conclusion, Jersey×Friesian crossbred cows seem to produce more milk but their calving interval is longer compared to Jersey cows. Thus, Jersey×Friesian crossbred cows showed better productive performance in the Dry zone.

Keywords: Jersey, Jersey×Friesian crossbred, Productive & reproductive, Performance

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