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GENETIC AND NON GENETIC EFFECTS ON MASTITIS DISEASE IN FRIESIAN COWS

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ABSTRACT

The data of 1388 productive records for 279 Friesian cows were studied during the period from 1987 to 2008 in dairy farm belonging to Faculty of Agriculture, University of Alexandria.
The traits under study were total milk yield (TMY, kg), 305 day milk yield (305-dMY, kg), lactation length (LL, days), persistency of lactation (Per, kg), first service period (FSP, days), days open (DO, days), and mastitis score (M.Score). The model included the fixed effects of parity, year of calving, season of calving and age at first calving as fixed effects and errors. Mean of mastitis score was (0.023 ± 0.002). Analysis of variance showed significant effects ($P< 0.0001$) of parity, year of calving and age at first calving on mastitis score, while, non significant effects of season of calving on mastitis score. Heritability estimate for mastitis score was 0.119. Also, genetic correlation among mastitis score and all traits studied were positive, while, phenotypic correlation were lower positive and negative values. Also, estimated breeding values of mastitis score for cows, dams and sires were 0.022, 0.015 and 0.008, respectively. Additions, when the averages of the traits under the study increased the times of infection increased except persistency. Also, the present results showed that numbers of infected cows by mastitis were increased in multiparious, older ages at first calving and winter season.