

Reproductive performance of Jersey and Jersey x Holstein Friesian crosses in the dry zone of Sri Lanka under sophisticated intensive cattle management system

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The study was undertaken to evaluate the reproductive performance of imported Jersey and Jersey x Holstein Friesian cattle over a period of 9 years (2015–2023) at the National Livestock Development Board (NLDB) farm Ridiyagama, located in the dry zone of Sri Lanka. The records on reproductive traits viz. age at first calving (AFC), gestation length (GL), calving to service period (CSP), number of services per conception (SPC) and dry period (DP) of 4806 records of 1356 cows were used. Data were analyzed using general linear model with SAS online version. In addition to the above listed variables, year of calving, season of calving, year of dry off and season of dry off were included in the model. The overall least square means ($\pm$ SEM) of studied reproductive traits were AFC: 28.83 ± 0.003 months, GL: 275.56 ± 0.003 days, CSP: 70.15 ± 0.01 days, SPC: 4.28 ± 0.002 and DP: 144.84 ± 0.04 days, respectively. The least square means ($\pm$ SEM) of reproductive traits for Jersey and Jersey x Holstein Friesian crosses were AFC: 29.04 ± 0.15 months and 28.7 ± 0.13 month; GL: 276.77 ± 1.33 days and 275.91 ± 1.31 ; CSP: 67.47 ± 1.11 days and 70.81 ± 0.93 days; SPC: 4.06 ± 0.29 and 4.42 ± 0.28 ; DP: 139.94 ± 4.11 days and 144.49 ± 3.39 days, respectively. Current study revealed that AFC for both breeds lie within the optimum range of 24 to 30 months for cattle. The traits CSP, SPC, and DP exceeded standard values of 45-50 days for CSP, ≤ 2 for SPC and 60 days for DP. However, for these traits, Jersey showed lower values than Jersey x Holstein Friesian crosses indicating the adaptive nature of Jersey to the tropical climatic condition.

Keywords: Dry zone, Holstein Friesian, Jersey, reproductive traits, intensive management

Acknowledgement: Authors express their sincere gratitude to the Chairman NLDB for granting permission to collect data from Ridiyagama NLDB farm, as well as to Mr. T. Vidanapathirana, Farm Manager, and the entire staff of the Ridiyagama farm for their invaluable support and assistance during the data collection process.

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