

Seasonal trends and breeding practices that influence the performance of imported dairy cows in north of Algeria

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Abstract

The aim of this study was to determine and evaluate the zootechnical performance of imported Prim' Holstein and Montbéliarde cows. A total of 1421 records, collected between 2018 and 2021 from 155 herds, were used for this study. The zootechnical traits studied included body condition score (BCS), calving rank (CR), lactation length (LL), daily milk production (DMP), heifer age at first calving (HC), days from calving to first insemination (DCFI), days from first insemination to conception (DFIC), calving interval (CI), number of inseminations per conception (NIC), and success rate at first insemination (SRFI). The factors examined were BCS and calving season. The data show that the BCS was 3.03 ± 0.17 . The heifer age at first calving was 36.52 ± 5.70 months, the calving rank was 3.5 ± 1.25 , and the calving interval was 423.17 ± 13.58 days. The number of inseminations per conception was 3.07 ± 1.05 , with an average summer and spring daily milk production of 30.84 ± 12.80 and 52.77 ± 9.50 litres, respectively. Results showed that the DCFI, CI, and DMP traits were significantly influenced by the year and season of calving ($P < 0.01$), whereas NIC and SRFI were significantly affected by season and year ($P < 0.001$). Furthermore, the breed significantly affected DCFI, SRFI, NIC, and MP ($P < 0.05$). The reproductive performances were poor, indicating that several aspects of breeding management need to be reviewed. Improving these areas can help correct the issues identified.

Keywords: Dairy cattle, Fertility, Management, Performance