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Effect of Non-Genetic Factors and Heritability Estimate of Some Productive and Reproductive Traits of Holstein Cows in Middle of Iraq

Authors : Salim Omar Raoof

Abstract : This study was conducted at the Al-Salam cows' station for milk production located in Al-Latifiya district - Al-Mahmudiyah district (25 km south of Baghdad governorate) on a sample of (180) Holstein cows imported from Germany by Taj Al-Nahrain company in order to study the effect of the sequence, season and calving year on Total Milk Production (TMP). The lactation period (LP), calving interval, Services per conception and the estimate of the heritability of the studied traits. The results showed that the overall mean of TMP and LP were 3172.53 kg and 237.09-day respectively. The parity effect on TMP in Holstein cows was highly significant (P≤0.01). Total Milk production increased with the advance of parity and mostly reached its maximum value in the 4th and 3rd parity being 3305.87 kg and3286.35 kg per day, respectively. Season of calving has a highly significant (P≤0.01), effect on (TMP). Cows calved in spring had a highest milk production than those calved in other seasons. Season of calving had a highly significant (P≤0.01) effect on services per conception. The result of the study showed the heritability values for TMP, LP, SPC and CL were 0.21, 0.08, 0.08 and 0.07, respectively.

Keywords : cows, non genetic, milk production, heritability
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