

Genetic and Non-Genetic Evaluation of Milk Yield and Litter Size of Awassi Sheep in Drylands

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Abstract : The research was carried out using records of Awassi sheep bred in drylands at Al-Fjaj Station, Jordan. That aimed to study non-genetic factors affecting milk yield (MK), litter size at birth (LZB); estimate heritability, repeatability, and genetic and phenotypic correlation using SAS and MTDFREML programs. The results were as follows, the average MK and LZB were 92.84 (kg) and 1.16, respectively. MK was highly significantly affected by each parity, age of ewe, year of lambing, and lactation period, while only the year of lambing had a significant effect on LZB. The heritability and repeatability were 0.07 and 0.10 for MK, while it was 0.05 and 0.25 for LZB. The genetic and phenotypic correlations were 0.17 and 0.02 between MK and LZB, respectively. The research concluded that the herd is genetically homozygous and therefore needs to increase genetic variance by introducing LZB-improved rams and selecting females from dams who achieved at least four parties to increase returns in drylands.

Keywords : Awassi sheep, genetic parameters, litter size, milk yield

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