

Effect of selection intensity for different ranges in estimation of the direct and correlate expected genetic response to milk yield in Cyprus goats

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Corresponding author:**Al-Azzawi ZMM****ABSTRACT:**

This study was carried out at the ruminant Research Station, State Board for Agricultural Research (20 km west of Baghdad) during 2016 and 2017 in 318 Cyprus goat to investigate the estimation of direct and correlated genetic response dependent on phenotypic values for Total Milk Yield (TMY), Lactation Period (LP) and Economic Value (EV) of both traits to different criteria of selection program (90, 80, 70, 60 and 50%) were used to select doe's from the flock. The selection depend on phenotypic values TMY, LP and EV. The percentage of direct genetic response for TMY 1.97, 4.04, 6.29, 8.83 and 11.37% from the flock mean at the selection percentage 90, 80, 70, 60 and 50% respectively. Direct genetic response of LP corresponding were 0.311, 0.462, 0.612 and 2.14% at the selection percentage 90, 80, 70 and 60% from the flock mean. The percentage of direct genetic response for EV 1.32, 2.80, 4.53, 6.21 and 8.12 from the flock mean at the selection percentage 90, 80, 70, 60 and 50% respectively. The selection at 50% of doe showed a high of direct genetic response 11.37, 2.14 and 8.12% for TMY, LP and EV respectively. The direct selection for EV showed increase in the percentage of correlated genetic response for TMY 8.12 % at selection criteria 50% and 0.046% at selection criteria 70% to LP. However, the direct selection for TMY and EV showed a decrease in the percentage for LP at all selection criteria. In conclusion, a positive genetic response dependent on direct selection was found.

Keywords:

Genetic response, Milk production, Cyprus goat, Economic value.