

A total of 956 Friesian cows with multiple lactation records, spanning a period of 22 years (1966 to 1987), were genetically evaluated by computing four different indices for each animal (Kenya). The indices were Adjusted Least Square Mean (ALSM), Expected Real Producing Ability (ERPA), Expected Breeding Value (EBV) and Predicted Breeding Value (PBV). Two parameter combinations of heritability (h^2)=0.20 and repeatability (t)=0.43, generated were from the data, and h^2 =0.25 and t =0.45, averages of estimates obtained from literature were employed. The results from using the two sets of parameters did not change the final outcomes. The correlations between the cow rankings by the four indices so computed showed that the rankings by ALSM, ERPA and EBV were similar, but markedly different from that by PBV. On the other hand, the relative efficiencies of the indices identified PBV as the most appropriate index for the selection of dairy cows.