

GENETIC PARAMETERS OF BARKI SHEEP RAISED UNDER SEMI-ARID CONDITIONS

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SUMMARY

Records on 695 lambs were collected over a period of 5 years from 1961/62 to 1965/66, at Ras El-Hekma Desert Research Station, 230 km west of Alexandria. The characters studied were birth, weaning and yearling body weights, pre- and post-weaning daily gains and greasy fleece weight.

Birth, 120-day and 365-day body weights were 3.4, 18.2 and 33.4 kg respectively. Greasy fleece weight at 16 months of age was 3.29 kg. Heritability estimates of birth, weaning, yearling weights, pre- and post-weaning daily gains and greasy fleece weight were 0.22, 0.45, 0.41, 0.45 and 0.29 respectively. Genetic and phenotypic correlations between birth, weaning and yearling weights were all positive and significant. Genetic correlations between fleece weight and body characteristics were negative and low.

INTRODUCTION

THE name Barki derives from Barka, the Eastern province of Libya where these sheep originated. In Egypt they are found in the coastal strip of the western desert and in some of the cultivated areas bordering the desert. Animals of this breed have a remarkable ability to live in these semi-arid regions on sparse vegetation and little water. They have also proved to be well adapted to the severe and variable climatic conditions which prevail in these areas, especially during the hot and dry summer months.

The first published work on Barki sheep were the reports of Ragab and Ghoneim (1961) on wool characteristics and those of Kassab and Karam (1961) and Labban and Radwan (1963) on body weights. These reports, however, dealt with Barki sheep raised under farm conditions in the Nile valley. These conditions are completely different from those of the desert. Studies on productive and reproductive traits of Barki sheep under desert conditions have been carried out since 1959 at Ras El-Hekma Desert Research Station located 230 km west of Alexandria on the Mediterranean coast.

In the present investigation the genetic and phenotypic parameters of weights, growth rates and greasy fleece weight of Barki sheep were studied. The estimates were also compared with those reported on animals raised under farm conditions.

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