

## عنوان مقاله:

Genetic parameter estimates of body weight traits in Iran-Black sheep

## محل انتشار:

دوفصلنامه علوم و فناوری دامداری، دوره 1، شماره 1 (سال: 1392)

تعداد صفحات اصل مقاله: 7

## نویسنده:

A. Rashidi - Department of Animal Science, Faculty of Agriculture, University of Kurdistan, Sanandaj, Iran

## خلاصه مقاله:

The objective of the current study was to estimate the genetic parameters for body weight traits at different ages in Iran-Black sheep. Data collected during a 24-year period (1984-2008) on body weight were used to model the growth trajectory and estimate genetic parameters. Studied traits were birth weight (BW), weaning weight at 3 months of age (WW), 6 months weight (6MW), 9 months weight (9MW) and yearling weight (YW). Genetic parameters were estimated using the restricted maximum likelihood (REML) procedure under univariate and multivariate animal models. Random effects were explored by fitting additive direct genetic effects, maternal additive genetic effects, maternal permanent environmental effects, the covariance between direct and maternal genetic effects and common litter effects in twelve different models for analysis of each trait. Direct heritabilities estimated for BW, WW, 6MW, 9MW and YW were 0.02, 0.14, 0.16, 0.25 and 0.34, respectively. Maternal additive genetic variance had significant effects on the expression of body weights from birth to six months of age; resulting in values of 0.24, 0.02 and 0.09 for maternal heritability of BW, WW and 6MW, respectively. Maternal permanent environmental effects were only significant for BW, WW and 9MW leading to estimates of 0.09, 0.13 and 0.08 for maternal permanent environmental variance as a proportion of phenotypic variance ( $c^2$ ) for these traits, respectively. The magnitude of the ratio of common litter variance to phenotypic variance ( $l^2$ ) was 0.24 and 0.13 for BW and 6MW, respectively. The present study showed the importance of inclusion of maternal effects in designing appropriate breeding programs for genetic improvement in Iran-Black lambs for body weight

## کلمات کلیدی:

heritability, genetic correlation, Growth traits, sheep

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/862298>

