

A study of some factors associated with body weights of Awassi sheep

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Abstract

This work was undertaken on Awassi lambs reared at sheep farm in Dujaila – Wasit Governorate .to study the effect of some non- genetic factors such as sex of lambs ,age of dam , month of birth and type of birth on body weights at birth , weaning and average daily gain .A total of 150 Awassi lambs records born a live during 1981 – 1982 were used in this study .The least squares means of birth weight , weaning weight and average daily gain were 3.606 ± 0.049 , 20.052 ± 0.118 and 0.137 ± 0.0008 Kg respectively . Sex of lambs , age of dam , month of birth and type of birth affected significantly ($p < 0.01$) on all 3 traits studied .

Correlation coefficient among birth weight and each of weaning weight and average daily gain were a highly and positively 0.89 and 0.73 respectively .

Introduction

The first and most fundamentals step in the meat production projects from sheep is the production of lambs and raising it to weaning age.In most Mediterranean countries revenue from sheep and goats is based on the sale of lambs and kids for meat (1) . So the choice of sheep breed depend on the weights of lambs born to and weaned such ewes, besides growth rate which is an important traits because of its high association with economy of gain and its relation for fixed costs , such as veterinary , building ,grazing , fees and labor that tend to be a per head or per unit of time basis .

The purpose of the present study was to evaluate the effect of some environmental factors on body weights of Awassi sheep in the central part of Iraq .

Materials and methods

Data used in this study were obtained form breeding records maintained at sheep farm in Dujaila – Wasit Governorate. They consist records of 150 Awassi lambs born during 1981 – 1982 .

Lambs suckled their dams twice daily up to 3 months of age after which these were weaned at 120 days.As it can be seen from table –1 data were classified into 3 groups according to age of dams again into 3 groups according to month of birth.The effect of sex of lamb,age of dam, month of birth and type of birth were studied simultaneously by least-squares method with unequal subclass numbers as described by (2) .

Results and Discussion

Birth weight :

The average of birth weight $3.606 + 0.049$ Kg (Table 1) obtained in the present study was similar to those reported by (3,4) but higher than that reported on Awassi sheep in central of Iraq (5) and on karadi sheep in the northern of Iraq (6). Differences due to sex for this trait were significant ($p < 0.01$) (Table2) and are in agreement with the reports of (4 , 7 , 8 , 9) . The result of this investigation revealed that male lambs tended to be heavier at birth than female lambs 3.717 ± 0.886 Vs 3.495 ± 0.018 Kg (Table 1). Similarly (10,11,12)observed that birth weight of male lambs exceeded those of female lambs by 0.20 , 0.22 and 0.27 Kg respectively. On the contrast (6, 13) found no significant difference between weight of male and female lambs at birth.

Type of birth had a significant effect on birth weight (Table 2). Single births had heavier at birth than those twin births 3.941 ± 0.060 Vs 3.271 ± 0.026 Kg (Table 1). (5, 14) also observed that single births exceeded those of twin births by 0.38 and 0.80 kg resp. Age of dam affected significantly ($p < 0.01$) on birth weight (Table 2), lambs from 2 year old dams weighed 0.361 Kg less than the overall mean (Table 2) , whereas 3 years old dams produced the heaviest lambs namely 0.252 Kg above the overall mean (Table1). As a whole birth weight tended to increase with advancing age of dam which usually attributed to changes in body to increase with advancing age of dam which usually attributed to changes in body size and