

Evaluation of reproduction performances of Ouled Djellal ewes at four different sites in an arid zone

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Abstract

This study aims to evaluate reproduction performances of Ouled Djellal ewes', reared in four different sites at Biskra province namely: ElHadjeb, Sidi Okba, Ouled Djellal and Chaiba, all flocks are reared in extensive mode.

This study was based on 551 clinically healthy and non-pregnant, Ouled Djellal ewes'. The mate was free; it was conducted during two months May to June 2015 (61 days) for all herds. During the period of lambing and in all flocks we identified: The total number of ewes lambing, and the total number of lambs.

Statistical analysis of reproduction variables was determined using the software "IBM SPSS Statistics 20" SPSS Inc, Chicago, Illinois, USA. We compared fertility, fecundity and prolificacy rates. We used χ^2 test to find out the existence of a link between the measured rates of the four sites. This former test was significant, so multiple comparisons was used to reveal the sites of significant differences.

The variables analysed were: fertility, prolificacy and fecundity, and their overall averages were 78%, 117% and 92% respectively, which are well below the averages in flocks reared in an intensive mode. However, the lowest rate was recorded at site 4 (Chaiba) with 65%, 109% and 71% respectively.

The results of this study clearly indicate that the region has an important influence on fertility ($p = 0.001 \ll 0.05$), fecundity ($p = 0.0001 \lll 0.05$), and does not influence prolificacy ($p = 0.074 \gg 0.05$).

Key-words: Ouled Djellal Ewes, reproduction, fertility, prolificacy, fecundity, Biskra