

PRE-WEANING GROWTH OF MARWARI LAMBS

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Marwari sheep is a good carpet wool breed of the arid tracts of Rajasthan but the lambs from the Marwari ewes maintained on grazing alone, without feed supplementation, do not perform well (Prasad *et al.*, 1980). An experiment was, therefore, conducted at the Central Sheep and Wool Research Institute campus, Bikaner, to assess the pre-weaning growth of the Marwari lambs under adequate feeding conditions. Twenty five male Marwari lambs (7 to 15 days old) were selected along with their mothers from the Institute's flock. A group of 25 male Marwari lambs of similar age was simultaneously kept as a check to study the performance in the routine management conditions being followed in the Institute. In the control, the ewes were supplemented with concentrate @ 300 g/day and the lambs were provided concentrate *ad libitum* in addition to grazing and suckling the mothers. The experimental lambs were allowed to suckle their mothers twice a day and were offered *ad libitum* a complete feed comprising 75% concentrate and 25% ground hay of moth bean (*Vigna aconitifolia*). Green oats fodder was also provided to them for nibbling. The concentrate mixture comprised barley 45%, groundnut cake 30%, wheat bran 17%, molasses 5%, mineral mixture 2%, salt 1% and vitablend 20 g/kg of mixture. The ewes with experimental lambs were allowed to graze for 8 hours/day on natural rangeland at the Institute farm and supplemented with concentrate feed as in the control lot. Milk production was estimated by lambs suckling technique, once a week for two times a day. The lambs were weighed every fortnight and feed consumption was recorded daily. The means were compared using student's 't' test (Snedecor and Cochran, 1969).

The average birth weight of the lambs was 2.88 ± 0.9 kg and 3.16 ± 0.08 kg in the experimental and control groups, respectively. The weights of lambs in the 1st, 2nd and 3rd month of age were 7.0 ± 0.5 kg, 11.3 ± 2.1 kg and 14.7 ± 1.9 kg in the experimental group and 7.3 ± 0.24 kg, 10.9 ± 0.27 kg and 14.09 ± 0.61 kg in the control group. There was no statistically significant difference in the growth of lambs in the two groups. Taneja (1968) observed that the male Marwari lambs weighed 2.55 to 4.41 kg in the first month, 4.86 to 6.64 kg in the second month and 7.55 to 8.52 kg in the third month of age. Prasad and Sinha (1980) reported that male Marwari lambs weighed 3.28, 4.73 and 6.38 kg at one, two and three months of age when maintained solely on grazing. In the present studies body weights observed were much higher. The average daily gain in body weight was 131 g and 121 g in the experimental and control

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group of lambs, respectively. The experimental lambs consumed, on an average, 8.1 g, 123.5 g and 312 g/day of feed during the 1st, 2nd and 3rd month respectively. Milk production from the Marwari ewes was 641.0 ± 60.9 g, 723.0 ± 75.3 g and 649.0 ± 59.5 g in the experimental group during the first, second and third month of lactation, respectively. The better growth rate of lambs and higher milk production by the ewes in the experimental lot are ascribed to the better nutritional status of the ewes. The Marwari breed appears to have potentially good lamb growth provided the lambs and the lactating ewes are given adequate nutrients. The potentiality of Marwari sheep as a dual purpose breed needs to be explored.

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