

Comparison of Small Ruminants (Sheep) Production Efficiency of Nomadic and Transhumance Flocks in Malakand, Pakistan

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Abstract : The present study was conducted to compare sheep rearing in nomadic with transhumance system in term of production parameters. The following parameters which studied for comparison were household size, landholding area, flock size, body condition score, fecal egg count and live weight change in sheep under nomadic and transhumance systems of management in Malakand since October 2010 to March 2011. Further the effects of Body Condition Score (BCS) and Fecal Egg Count (FEC) on production were also examined. Two systems were checked for the purpose to check the efficiency of production. A total of eight flocks, four each from nomadic and transhumance system were selected for the study; each flock was divided into treatment and controlled groups to check the effect of treatment or de-wormers. A total of 160 animals were selected randomly (80 treated, 80 controlled). The adult ram average weight transhumance system was 55.58 kg while in nomadic that was 54.16 kg, weight change was positive, and the highest change was recorded in transhumance treated which was 13%. Fecal egg count was record low (75 EPG) in transhumance treated group while high (330 EPG) in nomadic controlled. Body condition score was recorded 3.6 for transhumance treated and 3.32 for nomadic treated. It is concluded from the present study that transhumance system performed significantly ($p < 0.05$) better in respect of live weight, BCS, FEC, family size, Landholding area, number of animals in a flock, offspring record, culling, and mortality. Mean values are 7.367 ± 0.0221 , 0.900 ± 0.071 , 63.167 ± 1.559 , 55.600 ± 1.480 , 8.300 ± 0.321 and 2.500 ± 0.158 respectively. De-wormer effect on FEC showed a significant reduction in egg load in mature sheep on both systems.

Keywords : small ruminant, sheep, nomadic, transhumance, Malakand, production efficiency

Conference Title : ICSR2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020