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Determine the best cross of native sheep breeds for produce commercial lambs in khorasan

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Abstract

The aim of this study was to evaluate the effect of crossbreeding on pre- and post weaning and carcass composition of purebred and crossbred lambs. Thus, nine genetical groups such as purebred Kordi (KK), Baluchi (BB), Karakkul (GG), Kordi*Baluchi lambs (KB), Baluchi*Kordi (BK), Kordi*Karkul (KG), Karakul*Kordi (GK), Baluchi*Karkul (BG) and Karakul*Baluchi lambs (GB) were used. The reproductive performance of ewes and preweaning performance of lambs was examined. The fattening of lambs in post weaning period was done for 90 days. Metabolizable energy, chemical composition and dietary components were equalled. The diets were offered to the lambs as total mixed, twice daily and adlibitum. For carcass analysis, three lambs from each group were selected and slaughtered. Data were analyzed with GLM procedure using SAS 9.2. Means were compared via least square means and Duncan test ($P<0.05$). Results showed that Kordi ewes mated with Kordi rams had the highest fertility efficiency (90%). Birth and weaning weights of lambs were significantly affected by the genetical groups ($P<0.05$). GG purebred lambs had the highest and BK crossbred lambs had the lowest birth weight (5.42 vs. 3.94 kg, respectively). According to the results, GG purebred lambs had higher average daily gain than crossbred lambs ($P<0.05$). Dry matter intake of GG lambs (1430 g/d) and KG crossbred lambs (870 g/d). Crossbreeding had significant effect on average daily gain ($P>0.05$). The mean of body live weight of fattening lambs in KG group than other groups were significantly higher. The genetical groups had significant effect on cold and hot carcass weights ($P<0.05$). The effect of crossbreeding on fat thickness, fat-tail, and shank was significant ($P<0.05$).

Keyword: Crossbreeding, Kordi, Baluchi, Karakul, sheep, growth, carcass compositions