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Effect of weaning age on feedlot performance and reproductive traits of ewe Zel

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Abstract

This study was conducted to evaluate the effect of weaning age on lamb's feedlot performance and reproductive traits of ewe Zel breed in National Gavdashat research station of Mazandaran province. Ninety male and female lambs with an average born live body weight 2.6±0.411 kg selected and were divided to three groups (each group=30) on birth date. The three treatments applied in this experiment were; 1. weaning at an average age of 60 days, 2. 75 days, or 3. 90 days. All of groups were supported by a starter diet besides dam's milk until being weaned and then the first group was weaned at 60 days of age, the second was weaned at 75, and the third was weaned at 90 days of age. All of groups introduced to program fattening and were fed with iso-energetics and iso-nitrogenous diets that were balanced on nutrient requirements of small ruminants (NRC, 2007. Feed intake and lamb's body weight gain were recorded during of fattening and feed conversion ratio (FCR) was calculated. The dam's ewe of all groups enter to mating program two months after parturition and ewe lambing data contain dam's weight, parturition case, lamb's mortality, and litter size were recorded. The ewe reproductive traits contain conception, parturition, prolificacy, lambing and liter size rate were calculated.

Results showed that dry matter intake (DMI) of fattening lambs weaned at 60, 75, and 90 days of age (806, 828, 841 gr) and FCR (5.3, 5.6, 6.1) did not affected by weaning age of lambs ($p>0.05$). Average daily gain (ADG) of male and female lambs were 169, 165, and 153 gr and for male lambs was 188, 181, and 181 gr for lambs that weaned at 60, 75, and 90 days respectively and there was no observed significant between treatments ($p>0.05$). The parturition rate, prolificacy rate, lambing rate, and litter size of groups weaned at 60, 75, and 90 days of age were 88, 81, and 85; 119, 118, and 117; 104, 96, and 100; and 19, 18, and 17% and there was no observed significant between treatments ($p>0.05$). Kilogram live born lambs of ewe present in mating, for groups that weaned at 60, 75, and 90 days of age was 2.8, 2.9, and 3.1 kg, so there was no significant between treatments ($p>0.05$). while feed cost decreased by weaning age of lambs but because of more weight gains of fattening lambs and milk produced, the benefit of groups weaned at 60 days of age was more than other groups and for groups weaned at 75 days of age was more than lambs weaned at 90 days of age. These results

indicated that, Zel lambs weaned at 60 days old and introduce to fattening program, will increased income compared to elder lambs.
Keywords: fattening lamb, weaning age, Zel ewe.