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Feed additive effects on Awassi ewe’s performance and their nursing lambs

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Abstract

To study the effect of feed additive on the performance of Awassi ewes and their nursing lambs, thirty Awassi ewes were individually housed with their nursing lambs and randomly assigned into three groups (10 ewes/treatment). A well-balanced feed additive premix (mineral and vitamin) for sheep was prepared for this study by Al-Estesharia and add to the diet at 2.5 % of the diet. Control (CON) were ewes fed diet with commercial premix added at 0.1 % of the diet; Premix (P2.5) group were ewes fed well-balanced premix at 2.5 % of the diet and premix plus (P2.5+) group were ewes fed well-balanced premix at 2.5 % along with balanced energy, protein diet. All groups offered *ad libitum* 20 % as wheat straw and the rest (80 % of the diet) as concentrate. Concentrate ingredients for all groups consist of corn grains, barley grains, soybean meal and wheat bran. The quantity of feed offered were monitored and gradually increased to make sure that ewes have free access to feed at all time. The quantity of feed offered to ewes were calculated and the next-day refusals were recorded. Lambs body weight were measured weekly, weaning weight were measured at 70 day and average daily gain (ADG) were calculated. Individual milk yield and components were measured biweekly for the first 10 weeks of lactation. No significant difference in average milk yield between CON and P2.5 groups. On the other hand, average milk yields in P2.5+ group were significantly higher ($p < 0.05$) compared to other groups (871 g vs. 717.3 and 680 g of milk for P2.5+, CON, P2.5, respectively). No significant differences were found in milk component. Milk protein, fat, lactose and total solid were not affected by adding well balanced feed additive to the diets. Lambs in P2.5+ and P2.5 had higher ($p < 0.05$) weaning weight and ADG compared to CON group. As a results, well-balance diet along with feed additive up to 2.5 % of the diet not only increase milk production in Awassi ewes, but also improve the performance of their nursing lamb.

Keywords: ADG, Awassi ewe, feed additive, milk yield, nursing lambs, weaning weight