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Provide suitable breeding pattern on Moghani ewe lambs reproduction efficiency

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Abstract

The experiment was conducted in three stages. In the first phase, the herd was synchronized and hormone-treated early in the Autumn to produce the lambs needed for the project. After numbering the lambs, the lambs' feeding began after a 14-day habituation period of less than 50 g and increased to 50 to 100 g / week. At the end of first month, lambs were divided into 2 treatments with 4 replicates of 10 lambs. These two treatments consisted of one group based on the traditional method in the area in which the lambs grazed pasture in addition to milk and the second group supplemented with milk and pasture, fed by concentrate with 17.5 percent protein and 2.65 metabolisable energy in diet according to standard sheep nutrition requirements (NRC, 1985), daily for 90 days. The lambs were weighed at the beginning of the experiment and each morning before feeding and the amount of concentrate consumed during each month was measured. The second phase of the experiment began at 4 months of age and the duration of the experiment was 4 months, in which the treatments were reared in the form of two previous experimental systems, except that feeding the second group with a concentrate diet was different from the first experiment. It contains 15 percent crude protein and 2.5 Mcal / kg metabolizable energy (NRC, 1985), which is used of 300-400 g daily. The lambs were weighed at the beginning of this stage and weighed once a month before feeding and the amount of concentrate consumed during each month was measured. Half of the lambs in each group, underwent synchronization with progesterone sponge for 12 days and 400 IU PMSG, after removal. At this stage, rams with suitable conditions were used to fertilize the studied lambs. The results showed that concentrated feeding method was approximately 10 kg heavier than traditional method and at the age of 10 months was able to achieve 60 percent physical maturity and fertility ($P < 0.05$). The production and reproductive performance of female lambs were affected by the main effects of production (traditional and concentrate) and with synchronization and hormone therapy and without them, so that the percentage of lambing, the amount of concentrate feeding and the synchronous feeding were abolished. Hormone therapy and concentrated feeding were better than the traditional method without synchronization ($P < 0.05$). However, these traits were not affected by the interaction effects of type of feeding nutrition method and synchronization. But these traits were not affected by estrus synchronization and the interaction effects of feeding method with and without synchronization. In conclusion, supplemental feeding of female lambs with concentrate for 8

months and synchronization of estrus and hormone therapy resulted in faster acquisition of 60% physical maturity by the lambs and increased economic life of breeding ewes in the herd and improved reproductive traits in the herd.

Key Words: Production pattern, Reproductive performance, Female lamb, sheep.