RESEARCH ON THE INFLUENCE OF EWE DIET ON MILK COMPOSITION AND GROWTH PERFORMANCE OF SUCKLING LAMB

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Abstract

This study evaluated the effects of ewe dietary composition-alfalfa silage vs. hay-based rations-on milk composition and suckling lamb growth from birth to weaning. Thirty-six lactating ewes were assigned to two experimental groups: group 1- alfalfa silage-based diet and group 2- hay-based diet. During the suckling period, the body weight of the lambs was recorded weekly, and the milk was analyzed for total solids, fat, protein and solids-not-fat. The study reveals that group 1 produced milk with higher fat and protein content, while group 2 yielded slightly higher SNF values. Lambs in group 2 exhibited significantly greater total weight gains ($p < 0.01$, $p < 0.001$) during mid-lactation and entire suckling period, as well as average daily gains (ADG) during mid-lactation ($p < 0.01$, $p < 0.001$), although ADG over the total period did not differ significantly between group (247.02 g/day to group 1 vs. 263.02 to group 2). Group 1 showed no advantage in lamb growth despite higher milk fat and protein content. Correlation analysis revealed strong positive relationships between milk SNF and lamb weight during the weeks 3–8. The results indicate that, although alfalfa silage improves certain aspects of milk composition, hay-based diets may better support lamb growth, highlighting a nutritional balance between benefits under the conditions studied.

Key words: *alfalfa silage, body weight, average daily gain, Tsigai breed*