

Effect of Different Dietary Energy Levels on the Performance and Nutrient Digestibility of Lambs

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Abstract

Sixty male lambs were used in this experiment to study the effect of energy level of diets on the performance, nutrient digestibility and carcass traits for 90 days. The animals were allotted into 3 groups, 4 animals per each. The first group was fed a medium energy diet (3.20 Mcal/kg diet), while the second group fed on diet contained high energy level (3.50 Mcal/kg diet) and the third group fed on low energy diet (2.90 Mcal/kg diet). All diets contained 14.70% crude protein in dry matter. The average daily feed intake was affected significantly ($P < 0.05$) by the level of energy and lambs group fed on low energy ration had significantly ($P < 0.05$) increased feed intake compared with other treatment groups. Lambs that received the highest energy level diet had a higher significant ($P < 0.05$) average daily gain than that received the medium and low energy diets. Feed conversion was deteriorated in lambs group fed on low energy diet. The digestion coefficient of nutrients and total digestible nutrient were increased significantly ($P < 0.05$) with high-energy diet. Dressing percentage and body fat was increased with feeding high dietary energy. It could be concluded that the high dietary energy produced the best performance, nutrient digestibility and carcass traits of lambs in addition to economical benefit.

Keywords: Energy, Performance, Digestibility, Carcass, Lambs