

Effects of different dietary energy and protein levels at fixed slaughter weight on performance and

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For eight Abi fattening lambs with similar initial weight (18.72±0.604 Kg) and age (90±5 days) from a flock of Abi sheep of Ramin Agricultural and Natural Resources University were randomly allocated to six dietary treatments in a 2×3 factorial experiment using completely randomized design. The treatments include low (L 2.4 Mcal/Kg D.M.M), medium (M 2.6 Mcal/Kg D.M.M) and high (H 2.8 Mcal/Kg D.M.M) levels of dietary energy in combination with low (L 16% cp) and high (H 18% cp) levels of dietary protein. The body weight (BW), average daily gain (ADG), average daily feed (ADF) and feed conversion ratio (FCR) of lambs were measured 10 weeks interval until the end of experiment. The carcass components were recorded at the end of trial. The ADG of lambs in L, M and H treatments were respectively 271, 244 and 206 g/day and the differences between them were significant (p < 0.05). The same trend was found for feed efficiency. The ADG was also significantly greater (p < 0.05) for lambs fed diets containing 18% protein than for lambs fed diets containing 16% protein (254 vs. 216 g/day). The FCR also had the same trend (4/47 vs. 5/37). The differences for other traits for diets containing different energy and protein levels were not significant. The interactions between protein and energy treatment levels were not significant for none of traits. In general, with increasing level of energy the performance of lambs particularly for ADG and FCR was improved for either of protein levels. The lowest ADG (150 g/day) and highest FCR (6/36) was belong to the treatment containing the lowest energy and protein levels and the differences between them and other treatments were significant (p < 0.05).

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