

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

Apparent digestibility of nutrients in dietary plans formulated for hair sheep

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The proposition to study diets that maximize the nutrient use efficiency by lambs from tropical regions may contribute to the improvement of nutritional plans, and better adapt the lambs finishing systems under confinement in the semi-arid tropics. The objective on this study was to evaluate the nutrient digestibility coefficients of diets in regard to the recommendations of the NRC (2007) for hair sheep. Twenty lambs at the age of four months and body weight of 14.8 ± 3.52 kg were used. The design was completely randomized in a 2x2 factorial arrangement (two dietary formulations for different maturities (early and late) according to the NRC (2007) and two adjustments of those formulations (0 and 15% reduction of CP and TDN values), with five replicates each. The data were submitted to an analysis of variance and mean comparison by the Tukey's test at 5% of probability. No interaction effect was observed ($P>0.05$) for the studied digestibility coefficients. The early maturity diet presented higher dry matter digestibility (65.60%) than the late diet (61.60%), fact that can be explained by the higher availability of material of quickly digestion. The diet with adjustment of 15% showed similar response, presenting the lowest coefficient in comparison to the nutritional plan without adjustment. The highest protein digestibility was observed in the late maturity diet, with a value of 78.88%, and that response is associated with the higher protein content in that diet. For the suggested adjustment, no distinction was observed ($P>0.05$) on the crude protein digestibility (71.97%). The diets affected ($P<0.05$) the digestibility of neutral and acid detergent fiber, which presented higher values in the late maturity diets due to the higher roughage:concentrate ratio (67:33) in comparison to the early maturity diet that had presented a roughage:concentrate ratio of 30:70. The diets with a 15% adjustment did not affect the digestibility of the fiber ($P>0.05$). The use of early maturity diets presents higher coefficients of dry matter digestibility. Late maturity diet with 15% adjustment provides improved protein and fiber digestibility.

Keywords: early, lambs, late, maturity, nutritional plan

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