

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

MORPHOMETRY OF RUMEN AND HISTOPATHOLOGY OF KIDNEY OF LAMBS FED DIETS WITH PALM AS EXCLUSIVE SOURCE OF FORAGE

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This study aimed to evaluate the morphometry of the rumen and histopathology of kidney of lambs fed diets containing forage palm as sole source of forage and wheat bran (WB) levels. The experiment was conducted at State Company for Agricultural Research of Paraíba (EMEPA), in Tacima - PB. Twenty-eight uncastrated lambs (SRD) with a mean initial weight of approximately 20 kg \pm 2.6 kg, distributed in a completely randomized experimental design, with seven replicates. The experimental treatments consisted of a standard diet containing buffel hay and forage palm and diets with forage palm and wheat bran levels (30%, 37%, 44%) in the dry matter. The confinement of the animals lasting 62 days. After this period, the animals were sacrificed and biological samples from the rumen and kidney were collected. The values obtained between the treatments were compared statistically with ANOVA and Tukey post test for $p < 0.05$. For the histopathological evaluation of the kidney of the five photomicrographs of the kidney of each animal was evaluated by a histologist for verification of possible histopathological findings. Animals intake 44% of WB was largest size of ruminal papillas (2347,896 μ m), followed by animals consuming 37% (1927,743 μ m) and 30% of WB (1767,424 μ m). However, there was no significant difference between the control group (1425.833 μ m) and consuming 30% WB. No effect of diets on the width of ruminal papillas (428.047 μ m). The greater size of the papillas of the animals in diets without the buffel hay is explained by increase in the production of volatile fatty acids, mainly propionate and butyrate, that are responsible for increase of the mitotic indexes of ruminal cells. In relation to the muscular layer of the rumen, there was reduction of the same with the inclusion of wheat bran, with the lowest values of the animals submitted to the diets with 44% (1675,931 μ m) and 37% (1564,916 μ m) of bran wheat. No renal changes were observed in the animals of the different groups analyzed, that is, the different diets did not influence the normal renal functioning of animals. The feeding of sheep with diets containing the palm as sole source of forage and levels of wheat bran does not negatively influence the ruminal and renal epithelium.

Keywords: cactaceae, cell, physically effective fiber, ruminants, wheat bran

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