EVALUATION OF PERFORMANCE AND TOXICITY IN SHEEP GRAZING ON BRACHIARIA DECUMBENS, BRACHIARIA BRIZANTHA, PANICUM MAXIMUM CV AIRES AND ANDROPOGON GAYANUS CV PLANALTINA

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Due to the increasing deployment of Brachiaria spp in the Brazilian soil, this project aims to evaluate the toxicity and performance of sheep grazing Brachiaria decumbens and Brachiaria brizantha, compared with Panicum maximum cv Aires and Andropogon gayanus cv Planaltina pastures. The presence of clinical signs of poisoning by Brachiaria spp and serum biochemical parameters: aspartate aminotransferase (AST) and gamma-glutamyltransferase (GGT) in sheep, as well as to quantify the concentrations of lithogenic saponins and spores of Pithomyces chartarum in samples collected from four pasture grasses were also evaluated. The experiment used 48 animals divided into four homogeneous lots consisting of castrated males, average weight 20 kg, aged between four and five months, coming from herds with no previous contact with Brachiaria spp. for more than three consecutive years and naive animals, i.e., that never had contact with Brachiaria spp. The animal performance was similar in sheep kept in paddocks with B. decumbens, B. brizantha and P. maximum cv Aires, but lower in the group that remained in the area formed by A. gayanus cv Planaltina (p ≤ 0.05). Animals with previous contact Brachiaria spp. showed no clinical signs consistent with poisoning from the ingestion of forage. However, two naive animals kept in the paddock of B. decumbens, were intoxicated, and one of them died, confirming the toxicity of grass for sheep not previously adapted to grazing. The determination of the concentration of saponin protodioscin of this experiment showed higher values, however, similar in samples from pastures of B. decumbens and B. brizantha, lower values in the samples of the pastures of A. gayanus, and absence of saponin in the samples protodioscin Aires (P. maximum) (p ≤ 0.05), depicted by the mean and standard deviation of 0.85 ± 0.33, 0.57 ± 0.24, 0.12 ± 0.01 and 0 respectively.