

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

PERFORMANCE OF SHEEP ON HIGH GRAIN DIET WITH PROBIOTICS BASED ON RUMINIAN FUNGI

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The use of probiotics in high grain diets increases animal performance by controlling ruminal pH preventing metabolic diseases. The objective of this study was to verify the potential probiotic effect of selected rumen fungi from sheep on animals submitted to high grain diets. The total daily feed intake (CTR) and mean daily consumption (DM), initial weight (PI), final weight (PF), total weight gain per bay (GPT) and daily mean (GPMD) were evaluated. The experiment was conducted in the sheep sector of Goiano IF - Campus Ceres, with a duration of 75 days (15 days of adaptation). A 2x4 factorial arrangement (processing corn: millet and whole X fungal probiotic: no probiotic, *Aspergillus terreus* (AT), *Rhizomucor* (RH) and Mix of the two fungi) was used in randomized blocks with six replicates (blocking sex: three males and three females). Inoculums were provided in the diet at the time of sprinkling with inclusion of approximately 14×10^{11} spores per trough bowl. The diet was offered *ad libitum* twice a day, weighing the amount supplied and the leftovers, allowed a surplus of 5%. The animals were weighed every 14 days. Data were submitted to analysis of variance, and the results were analyzed by the SNK test ($P < 0.05$) in software R (version 3.4.1). CTR and CMD were lower for diets containing ground corn (6.77 kg/bay/day and 1.12 kg/animal/day, respectively), regardless of the type of probiotic ($P < 0.05$). However, for whole maize TA showed the highest CTR and CMD (8.685 kg/bay/day and 1.449 kg/animal/day) ($P < 0.05$), mainly sequentially observed in the fourth, second and third periods ($P < 0.05$). There was influence of corn processing on GPT and PF ($P < 0.05$) being higher for whole grain (13.12 kg and 51.64 kg). In the diet containing whole and milled corn, there was no influence of probiotics on GPMD ($P > 0.05$). It is concluded that the diet of whole grain or ground can be used without prejudice to animal performance, but the corn milling process demands cost and makes it infeasible. As for the fungus TA increased the CTR in the whole grain diet where it presented higher GPT, but more studies should be performed verifying other dosages and yield and carcass quality.

Keywords: confinement, performance, cutting sheep, additives, non-bulky diet

Acknowledgments: Agrocria Nutrição Animal e Sementes, UFG e ao IF Goiano - Campus Ceres

Promoção e Realização:



Apoio Institucional:



Organização:

