

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## HYDROLYZED SUGARCANE TIP HAY CONSTITUTES ALTERNATIVE FORAGE IN DIETS FOR FINISHING SHEEP

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The balance of nitrogen compounds was evaluated in finishing sheep fed diets containing hydrolyzed sugarcane tip hay. The experiment was carried out at the DZO/CCA/UFPI, in Teresina, PI, Brazil. The hay was divided into five parts, one untreated and the other submitted to chemical treatments with urea at levels 3 and 6% and with calcium oxide at levels 1.5 and 3%, based in DM, constituting the base of total diets for daily gain 300 g. Twenty young male sheep crossbreed, with weight  $29.6 \pm 5.5$  kg, were kept in metabolic cages, fed rations provided at 8:00 a.m. and 3:00 p.m., with forecast 20% of leftovers. The experiment lasted seven days to adapt the animals and five days to collect. The dry matter content was determined and, based on DM, the Nitrogen content. For hay ammoniated with urea, nitrogen retention (NR) was calculated in relation to non-ammoniated hay:  $NR(\%) = [(NA - NNA) \div (\%U \times 0.45)] \times 100$ , where: NA = total nitrogen in ammoniated hay (%); NNA = total nitrogen in non-ammoniated hay and %U = percentage of urea in treated hay. The experiment was in randomized blocks and the data were analyzed in mixed models, with the treatments (diets) considered fixed effect and the blocks (animals) and the residue random effects, by SAS MIXED procedure, and the means were compared by Tukey test. The higher ( $P < .05$ ) N faecal:N intake ratio reflected a lower nitrogen balance for diets containing sugarcane tip hay ammoniated with 3% urea, providing an mean digestible protein (DP) intake of  $160.1 \text{ g day}^{-1}$ . However, higher NB was obtained with the diet containing sugarcane tip hay hydrolyzed with 1.5% CaO, corresponding to  $174.4 \text{ gDP day}^{-1}$ . The NB was positive for all diets, confirming that the N intake ( $36.0 \pm 1.4 \text{ g day}^{-1}$ ) met the requirements for finishing sheep, with no N mobilization of body reserve and N urinary excretion limited in  $1.8 \pm 0.2 \text{ g day}^{-1}$ . The N faecal ( $6.9 \pm 0.3 \text{ g day}^{-1}$ ), N absorbed ( $29.0 \pm 1.2 \text{ g day}^{-1}$ ) and the ratios N faecal:N intake ( $5.0 \pm 0.5\%$ ) and N faecal:N urinary ( $4.5 \pm 0.4 \text{ g g}^{-1}$ ) weren't influenced ( $P > .05$ ) by inclusion of ammoniated or hydrolyzed with CaO sugarcane tip hay in diets. The NB positive for all diets with no N mobilization of body reserve and limited N excretion indicates viability of use of this stubble for finishing sheep.

**Keywords:** ammoniation, culture stubble, Nitrogen balance, *Saccharum officinarum*, urea

Promoção e Realização:



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