

SUGAR-CANE TREATED WITH CALCIUM OXIDE IN DIFFERENT TIME OF HYDROLYSIS, ON THE FEEDING OF HOLSTEIN X ZEBU HEIFERS¹

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The sugarcane is largely used by cattle farmer. However it has some NUTRITION limitations as high level of fiber with low digestibility (PRESTON, 1977). The calcium oxide (CaO) can be an alternative to improve the digestibility (OLIVEIRA, 2002). 24 Holstein-Zebu crossbred heifers with 243 kg body weigh were arranged in blocks delineation, and data were analysed by t test ($P < 0,05$). The objective of the first experiment was to evaluate the effect of different times of reaction (0, 24, 48 and 72 hours) of 1% CaO in as fed basis (%AS) in the sugarcane with 1% of urea and ammonium sulfate (9:1). The objective of the second experiment was to evaluate the sugarcane in nature or plus 1% CaO (%AF) after 24 hours of reaction with different times of urea and ammonium sulfate (9:1) administration. In the two studies, the Intake (I) and Apparent Digestibility (AD) of dry matter (DM), organic matter (OM), crude protein (CP), ether extract (EE), neutral detergent fiber corrected for ash and protein (NDFap), acid detergent fiber (ADF), cellulose (Cell), hemicelluloses (HCell), neutral detergent soluble carbohydrate (NDSC), total carbohydrate (TCHO), calcium (Ca), phosphorus (P), intake of total digestible nutrients (TDN) and digestible dry matter (DDM) and ingestive behavior were determined. In the first experiment, the different hydrolysis times didn't change Intake and AD of DM, OM, NDFap, ADF, Cell, TCHO, NDSC, Ca, P, intake of TDN and DDM, and ingestive behavior. There was reduction in the ICP from 48 hours and linear decrease ($P = 0,007$; $r^2 = 0,282$) in the ADCP from 24 hours of reaction. In the second experiment, there was reduction in the AD of OM, TCHO, NDSC, NDFap, EE, Cell, HCell, P and intake of TDN with 1% CaO addition. The supply of urea and ammonium sulfate (9:1) at the same time of the CaO decreased the intake of OM and CP, decreased the ADCP, and increased the rumination time. The sugarcane with 1% CaO, although didn't change intake and digestibility until 72 hours, is not recommended, When compared with sugarcane in nature, that treated can have negative effect on intake and AD and a high relation Ca/P.

OLIVEIRA, M. D. S.; QUEIROZ, M. A. A.; CALDEIRÃO, E. et al. *Efeito da hidrólise com NaOH sobre a digestibilidade in vitro da matéria seca da cana-de-açúcar (Saccharum officinarum L.)*. *Ars. Veterinária*, v.18, n.2, p.167-173, 2002.

PRESTON, T.R *Nutritive value of sugar cane for ruminants*. *Tropical Animal Production*, London, v.2, n.2, p.125-142, 1977



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