

Qualitative Characteristics of Meat from Lambs Fed Hydrolyzed Sugarcane

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Abstract : We used 24 Ile de France lambs, weighing between 15 and 32 kg (BW). Treatments were supplemented with concentrate: "in nature" sugarcane (IN), sugarcane hydrolyzed using 0.6% calcium oxide (CaO) under aerobic condition (AER), and sugarcane hydrolyzed using 0.6% CaO under anaerobic condition (ANA), constituting a completely randomized design with eight repetitions per treatment. Lambs were housed in individual stalls and fed into the trough, allowing 10% of leftovers. Lambs were slaughtered when body weight reached 32 kg. The following parameters were determined on Longissimus lumborum muscle of hot and cold carcasses: pH and color, 45 minutes and 24 hours after slaughtering. Qualitative analysis of the meat were performed in the loins, water-holding capacity (WHC), cooking loss (CL), and shear force (SF). We used a completely randomized design with three treatments and eight repetitions. Means were compared by Tukey test at 5% significance. A higher value for redness (a^*) 45 minutes after slaughter (10.48) was found for lambs fed sugarcane hydrolyzed under anaerobic conditions. The other qualitative characteristics of meat were not affected by treatments ($P > 0.05$). The comparison of meat quality resulting from the treatments shows that it is possible to feed in nature sugarcane to lambs, thus waiving hydrolyses process and the spending with alkalizing agent.

Keywords : oxide, hydrolysis, meat quality, pH

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