

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

ESTIMATES OF TOTAL DIGESTIVE NUTRIENTS, TOTAL CARBOHYDRATES AND NON-FIBROUS CARBOHYDRATES OF SUGAR CANE SILAGE CONTAINING CRAMBE BRAN

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The use of nutrient/absorbent additives in sugarcane silage, can improve the nutritive value of silage. The objective of this work was to evaluate the effects of the inclusion of crambe bran levels (*Crambe abyssinica* Hoechst) on the nutritional value of sugarcane silage evaluated at different silos opening times. A completely randomized design was used in a 4x4 factorial scheme, with four levels of addition of crambe meal (FC: 0, 5, 10 and 20% based on natural matter) and four opening times of the silos (10; 20; 30; 60 days after the silage production), with four replications. Based on the results of the basic bromatological composition, it became possible to estimate the total estimated carbohydrate (TC), non-fibrous carbohydrate (CNF) content and total digestible nutrients. The TC contents were calculated according to the equation: $CT = 100 - (\% PB + \% EE + \% MM)$, where: CT (%): total carbohydrates; % CP: crude protein content determined in the food; % EE: content of ethereal extract determined in the food; % MM: content of mineral matter determined in the food. The CNF contents were calculated according to the equation: $CNF = \% CT - \% FDN_{cp}$ where: CNF (%): non-fibrous carbohydrate; % TC: total carbohydrate content determined in the food; % FDN_{cp}: neutral detergent fiber content corrected for ash and protein determined in the food. The NDT contents were counted according to regression equations. For silages: $NDT = 99.39 - 0.7641 * \% NDF$ where % NDF: neutral detergent fiber content present in silages; For the crambe meal: $NDT = 60,04 - 0,6083 * \% FDA$, where % FDA: content of acid detergent fiber present in crambe bran. The variables were evaluated using analysis of variance and regression model, with 5% probability. There was interaction effect levels * opening days for the variables studied. For NDT, there was increase of the variable as a function of addition and reduction levels according to opening days. The contents of CT and CNF reduced according to the levels of CF and the days of opening after ensiling. The addition of crambe bran in sugarcane silage improved its chemical-bromatological composition, indicating its inclusion up to 10%.

Keywords: absorbent additive, bromatology, conservation, *Crambe abyssinica* Hoechst

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