

INCLUSION OF PEPPER (*CAPSICUM SPP.*) ON THE CONSUMPTION OF FOOD CARBOHYDRATES IN SHEEP

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Peppers can be classified as a functional food by having several nutrients, such as high carbohydrate and dietary fiber, as part of a group of so-called functional foods with an immense potential to be used as a natural feed additive. The objective was to evaluate the addition of 0.0% levels; 0.2%; 0.4% and 0.6% in DM of pepper (*Capsicum spp.*) on carbohydrate consumption in sheep. The experiment was carried out at UNEMAT - Pontes e Lacerda University Campus. An experimental design was used in Latin square (4X4) with four sheep, four periods and four experimental rations, protocol of ethics committee number 001/2017. Four undefined sheep were used. The sheep were fed with concentrate composed of milled corn grain, soybean meal and dehydrated pepper, and corn silage as the bulky food, in the ratio of 40:60. The experimental rations were calculated to have a content of 13.0% of CB and 70.0% of TDN. After the collection period, the food samples, leftovers and faeces were collected in a kiln and processed in a mill. Neutral detergent fiber (NDF) and acid detergent fiber (ADF) were determined from foods, leftovers and faeces. The determination of total carbohydrates (TC) of food, leftovers and faeces was obtained by the equation: $TC = OM - [EE + CB]$. The non - fibrous carbohydrate (NFC) content of food, leftovers and faeces was determined by the equation: $NFC = 100 - (CB + NDF + EE + MM)$. The studied variables were interpreted through analysis of variance in the SISVAR program 5.6. The observed differences were determined by regression analysis considering 5% of significance. Addition of 0.0% levels; 0.2%; 0.4% and 0.6% in DM (*Capsicum spp.*), resulted in decreasing statistical significance ($P < 0.05$) for NDF intake, with initial consumption of 454.74 g /day⁻¹ dropping to 402.91 g /day⁻¹. The variables ADF and TC obtained a quadratic behavior. The maximum consumption point of ADF was 0.35% at 213.68 g /day⁻¹ and the maximum point for the CT consumption variable was 0.36% and 929.55 g /day⁻¹. The consumption of NFC did not reach statistical significance with the addition of pepper levels (*Capsicum spp.*) It was concluded that the addition of the levels 0.0%; 0.2%; 0.4% and 0.6% in DM, of pepper (*Capsicum spp.*) Influences the consumption of NDF, ADF and TC in sheep.

Keywords: additive, ADF, NDF, TC

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