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ZOOTEC 28º CONGRESSO BRASILEIRO DE ZOOTECNIA

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

ADDITION OF PEPPER (*CAPSICUM SPP.*) ON RUMINAL FERMENTATIVE PARAMETERS OF SHEEP

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Peppers of the genus *Capsicum ssp.* have great potential, being part of a group of foods called functional and with an immense potential to be used as a natural feed additive. The objective was to evaluate the addition of 0%; 0.2%; 0.4% and 0.6% in DM (*Capsicum spp.*) On ruminal pH and ammonia nitrogen (N-NH_3) parameters in sheep at different times before and after feeding. The experiment was carried out at UNEMAT - Pontes e Lacerda University Campus. The rations presented the following levels of inclusion of Pepper 0%; 0.2%; 0.4% and 0.6% in DM, ethics committee protocol 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. Five samples of ruminal liquid per animal were taken at the times: 0 (before feeding), 2, 4, 6 and 8 hours (after the first feeding). A vacuum pump with pressure was used. After filtration, these were homogenized and the pH value was measured immediately after each collection of ruminal liquid. Then approximately 50 mL of the ruminal liquid was transferred to a flask containing 1 mL H_2 SO_4 (PA-98.0%) to stop fermentation. This sample of the ruminal liquid was used to determine the concentration of ammoniacal nitrogen (N-NH_3). With the variables, the plot was subdivided, considering the evaluation times after the feeding of the animals, in which it was considered a frequentist analysis where the regression was determined for each level of inclusion by the SISVAR software 5,6. The addition of pepper (*Capsicum spp.*) Levels did not influence statistically the pH and N-NH_3 values ($p > 0.05$), however, the time variable was significant ($P < 0.05$), obtaining a response for pH and N-NH_3, where the lowest value of 6.42 found for pH was at 6h hour after feed and for N-NH3 the highest value of 43.99 mg $^{100\ mL-1}$ found was at point 4h after food. It was concluded that the addition of the levels 0%; 0.2%; 0.4% and 0.6% in DM (*Capsicum spp.*) did not alter the response on the ruminal pH and N-NH_3 parameters but obtained a response in time before and after feeding.

Keywords: additive, ammoniacal nitrogen, capsaicin, pH

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