

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## QUANTIFICATION OF ENTEROBACTERIA IN FAECES OF SHEEP FEEDED WITH SPINE CACTUS AND SILAGE OF SPINE CACTUS

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Feeding of ruminants grown in arid and semiarid environments has the use of spine cactus as key element in diets. However, during drought periods, their high supply can promote diseases, such as diarrhea, in the flock, which may be linked to the contamination of the cactus by pathogenic enterobacteria that find ideal conditions for their proliferation. Thus, the objective of this experiment was to compare bacterial growth in the faeces of sheep fed with spine cactus and silage of spine cactus. The experiment was carried out at the Empresa Estadual de Pesquisa Agropecuária (EMEPA) located in the city of Soledade-PB, Brazil. 20 sheep male Santa Inês, were distributed in a design completely randomized, consisting of four treatments where, T1 = Spine cactus crushed in the hour (PTH); T2 = Spine cactus crushed eight hours before feeding (PT8); T3 = Silage of spine cactus without inoculant (SSI) and T4 = Silage of spine cactus with inoculant (SCI). The animals spent 10 days in adaptation and 21 days of experimental period. On the last day of the experimental period, samples of feces were collected directly from the rectal ampulla of the animals and the population of Enterobacteria quantified in colony forming unit (CFU). Afterwards, an aliquot was removed and seeded in EMB medium and incubated at 37° C for 24 hours for Escherichia coli isolation, after which confirmatory biochemical test was performed. Statistical analyzes were performed using SAS® and the means compared by the Tukey test at 5% probability. There was a treatment effect on the Enterobacteria count in the faeces of the animals ( $P = 0.0067$ ), in which SSI and SCI promoted lower growth of Enterobacteria ( $5.48$  and  $5.20$  CFU  $g^{-1}$ ) respectively, compared to PT8 that obtained ( $6.41$  CFU  $g^{-1}$ ). In the biochemical test, it was possible to verify the presence of Escherichia coli bacteria in the feces of the animals fed with the diet PT8, the presence of these could represent future cases of diarrhea. The largest bacterial population in the diet PT8 may correlate the availability of substrate and moisture, already in the silages may have occurred a competition with lactic bacteria, reducing your population. Concluded that the spine cactus crushed before be fed can raise the bacterial load on the feed and cause disease later.

**Key words:** cacti, diarrhea, ruminants

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