Ingestive behavior ½ Blood Boer Goats Fed with hay of saltbrush

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Abstract **Resumo:**

The saltbrush (*Atriplex nummularia*)is a halophyte plant , able to grow under unfavorable conditions for other species. Its leafs have a high CP content and DM production. It has been used for supplementation of ruminants in arid and semiarid regions. However, when formulating diets it is known that some types of food and its combinations can lead to changes in feeding behavior (FB) of the animals and thus interfere with nutrient uptake and better production efficiency, since the factors affecting FB are related to food, animal health and the environment. The objective of this experiment was to evaluated the ingestive behavior of ½ blood Boer goats fed diets consisting of 8.4, 18.8, 31.2 and 48.3% hay of saltbrush, associated with spineless cactus (*Opuntia ficus*) added with urea and different concentrates of a base of corn and soy meal to make the diets isonitrogenous and isocaloric. It used 32 goats, males with body weight (BW) averaging 20.28 kg. The randomized block design was adopted. Statisticals analysis was performed using the software SISVAR, where the averages were compared with the Scott-Knott test. The FB of the animals was determined in four days within the period of 24 h/d, evaluated the feeding (FT), ruminating (RUT) and resting time (RET). FT, RUT and RET, showed average of 266, 866 and 487 min/d, respectively. The goats fed diets containing 8.4, 18.8 and 31.2% saltbrush of hay, took more FT when compared to goats fed the diet with 48.3% hay. When feeding the diet with the highest percentage of saltbrush of hay, the consumption was limited by probably two factors: excess salt and/or by physical effect, keeping the intake for longer in the gastrointestinal tract, which reduced the FT. The RUT in goats fed diets containing 8.4, 18.8, 31.2 and 48.3% saltbush of hay was averaged 7.49, 8.20, 8.39 and 8.40 h/day, respectively. These results are consistent with those found for FT, since the fiber content and physical form of the diet are the main factors that affect rumination time. Some studies claim that an animal that ruminates roughage during the period, 8-9 h/d, can consume more and be more productive. According to the results, the diet with 8.4% of hay did not made this rumination, probably due to the high content of spineless cactus diet (74.9% DM). Times of 10h, 15h and 16h showed the highest FT. Lowest FT occurred between three and four o'clock in the morning, where the animal decreased food intake and increased rumination, so there would be a better utilization of dietary nutrients by reducing the size of food particles, which resulted in a higher metabolic heat production, and thus can maintain its homeothermy. Diets containing more than 8.4% saltbrush of hay and spineless cactus do not compromise the productive performance ½ blood of Boer goats. However, diets must be provided around 6h and 16h, so that the peak metabolic heat production from the digestion does not coincide with times of high ambient temperature, thus facilitating the maintenance of homeothermy.