

Ingestive behavior of Nellore steers in feedlot fed with diets containing different corn hybrids

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The aim of this work was to study the feeding behavior of Nellore beef cattle in feedlot fed with diets containing different corn hybrids. Twenty-seven animals averaging 350 ± 24 kg of body weight and 24 months of age, were used. The animals were distributed in a completely randomized design with three treatments (T), where, T1-TDFC: total diet containing flint corn, T2-TDSFC: total diet containing semi-flint corn and T3-TDSDC: total diet containing semi-dent corn, with 9 replicates per treatment. The animals were fed ad libitum twice daily (at 8:00am and 4:00pm) with a diet isocaloric and isonitrogenous, with 30% of sugar cane bagasse and 70% concentrate (88% maize, 8% soybean meal, 3% mineral and vitamin supplement and 1% urea) for 95 days (14 days of adaptation and 3 experimental periods of 27 days each). The animals were weighed at the beginning of the experiment and after each period of 27 days, always in a fasting period of 16 hours. The evaluation of animals feeding behavior occurred at the last day of each period by visual observation every five minutes for full periods of 24 hours. Observations were made in four shifts: morning (06:00 to 12:00), afternoon (12:00 to 18:00), evening (18:00 to 00:00) and early morning (00:00 to 06:00) to determine the number of ruminal bolus, chewing time, total feeding time, total ruminating standing time, total ruminating lying time, total standing idle time and total lying idle time. During the night's observations, the pens received artificial illumination to facilitate the data collection and the animals were adapted with light at night for three days prior to observations. Animals fed with diets containing semi-dent corn had longer chew time and more ruminal bolus than those fed with flint corn, but did not differ from those that received semi-flint corn in the diet. The chewing time and number of ruminal bolus varied with the observation periods, being higher in the morning and decreasing in the afternoon, night and early morning. To the time spent feeding, ruminating and idle it was found that animals fed with diets containing flint corn had higher feeding time than those fed with diets containing semi-flint corn and semi-dent corn. Among the other variables there was no significant difference between treatments. It can be concluded that animals fed diets containing semi-dent corn spent more time chewing food had more ruminal bolus than those fed flint corn in the diet. Animals fed diets containing flint corn spent more time feeding than those fed diets with semi-flint or semi-dent corn. The chewing time and number of ruminal bolus is biggest in the morning and decrease in the afternoon, night and early morning.

Keywords: feeding, concentrate, idle, rumination.

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