FREQUENCY OF WATER INGESTION BY NELLORE COWS

FREQUENCIA DA INGESTAO DE ÁGUA POR VACAS NELORE

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The technological development of livestock production has led to the appearance of many devices to control animal health, stress, behavior and water intake. Monitoring animals using wireless intra-ruminal devices can obtain data on ruminal temperature, water intake frequency and reproduction events. Knowledge about the frequency of drinking events is important so as to offer the correct amount to animals. The objective of this study was to evaluate water intake frequency of Nellore cows receiving two different mineral supplements, during 17 days in November 2016. The data were collected by a Smaxtec intra-ruminal device registering temperature each 10 minutes. A drinking event was considered to have occurred when the device measured a temperature lower than 37.7 ºC. Two groups of 15 Nellore cows each were studied, one receiving salt and mineral supplement and the other receiving supplement though blocks with molasses (Caltech Crystalyx). The environmental temperature was controlled daily. The statistical analyses were performed using the univariate procedure of the SAS program. No influence was found of group receiving mineral supplement on the frequency of water ingestion events (P= 0.5163). The frequencies of drinking events were 2.92 ± 0.011 per day for cows receiving mineral supplement and 2.84 ± 0.010 per day for cows receiving Caltech Crystalyx molasses blocks. The environmental temperature influenced the frequency of drinking events. Maximum (P< 0.0001) and minimum temperature (P = 0.0067) affected the frequency of water intake events. Water ingestion was less frequent on cold days with rain, with averages of 0.37 and 1.65 events per cow per day. With higher temperatures (33.7 ºC and 35 ºC), without rain during the day, the average numbers of drinking events were 2.96 and 3.65 per day.

Keywords: intra-ruminal device, consumption, technology.

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