

FEEDING BEHAVIOR VARIATION OF NELLORE CATTLE CLASSIFIED BY RESIDUAL FEED INTAKE DURING EFFICIENCY TEST

VARIAÇÃO EM COMPORTAMENTO ALIMENTAR DE BOVINOS NELORE CLASSIFICADOS POR CONSUMO ALIMENTAR RESIDUAL DURANTE O TESTE DE EFICIÊNCIA

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This study aimed to evaluate feed intake and behavior during feed efficiency test of Nelore males from different residual feed intake (RFI) classes. Data from 85 Nelore males, with initial average age of 270 ± 23 days and body weight of 239 ± 41 kg were used. The feed efficiency test was performed during 119 days, divided in four periods. The first period (adaptation) had 28 days, and the three subsequent periods had, respectively, 28, 28 and 31 days. Animals were fed *ad libitum* at GrowSafe System® with 10 feeders, which recorded bunk attendance (BA), frequency of visits (FV) and feed intake (FI) individual data. After test end, RFI was calculated by the difference between observed and predicted feed intake, based on average daily gain and metabolic body weight. Then, animals were classified into low ($< \text{mean} - 0.5$ standard deviation-SD), medium (± 0.5 SD from mean) and high ($> \text{mean} + 0.5$ SD) RFI. Statistical analyzes were performed by PROC MIXED (SAS Inst., Inc., Cary, NC), including in the model effects of test period (1, 2, 3 or 4), RFI classes (low, medium or high) and interaction, being animal age considered as linear covariate. Feeding behavior pattern was not different among the efficiency test periods ($P > 0.05$), however differences were detected among RFI classes inside the periods ($P < 0.01$) (Figure 1). Low RFI animals, when compared to the medium and high RFI ones had lower BA in the four test periods. BA means ranged from 801 ± 7.7 to 878 ± 7.4 ; 910 ± 7.5 to 1029 ± 7.6 ; and 984 ± 9.1 to 1096 ± 8.9 min/day, respectively, for low, medium and high RFI classes. Low RFI animals also visited the feeders more times, when compared to the medium and high RFI ones. FV means ranged from 1708 ± 2.1 to 1712 ± 2.1 ; 1676 ± 2.1 to 1685 ± 2.1 ; and 1639 ± 2.5 to 1650 ± 2.4 visits/day, respectively for low, medium and high RFI classes. Further, low RFI animals had lesser feed intake than the medium and high RFI ones. FI means ranged from 698 ± 9.2 to 1144 ± 9.4 ; 776 ± 9.0 to 1165 ± 9.0 ; and 953 ± 9.0 to 1505 ± 10.8 kg/day, respectively, for low, medium and high RFI classes. Considering the various efficiency test periods, feeding behavior patterns are similar for animals from different RFI classes.

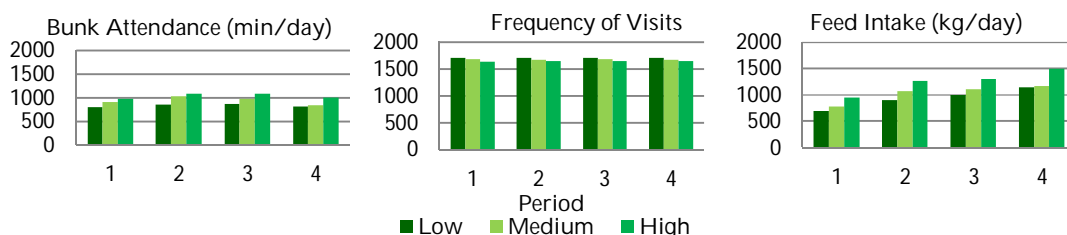


Figure 1. Bunk attendance, frequency of visits and feed intake of Nelore males from different RFI classes during the efficiency test.

Keywords: bunk attendance, feed efficiency, frequency of visit.

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