

Performance, feeding behavior and body measures of Brahman cattle classified according to the residual feed intake

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Presentation type

Pôster

Track

Genetics, animal, breeding

The aim of this study was to assess the relationships between residual feed intake (RFI), performance, feeding behavior (FB) and body measures (BM) in Brahman cattle. Twenty-four Brahman young bulls with 19 months of age and 370 ± 34 kg of initial body weight had the dry matter intake (DMI) and average daily gain (ADG) measured in individual pens during 54-d period. Cattle received a mixed ration containing 73.5% of Total Digestible Nutrients and 14.5% of Crude Protein and they were weighed each 14 days. The FB was evaluated in 10th, 25th and 40th experimental days and the animals were observed from 6h00 to 22h00, with an interval of five minutes between observations to obtain total times in idle (TI), feeding (TF) and rumination (TR) (minutes), number of visits to the trough and calculated the feeding rates (FR) per visit and hour. Body length, width of back and rump, height of forelimbs and hindlimbs and depth of ribs were measured on final weighing with a hipometer. The cattle were divided into: high-RFI (low efficiency, RFI > 0.5 standard deviation (SD), n = 4), medium-RFI (RFI between ± 0.5 SD; n = 12) and low-RFI (high efficiency, RFI < -0.5 SD; n = 7). The data were analyzed by ANOVA and means compared by Tukey test 5%. Low-RFI group showed lower DMI (10.1 kg day⁻¹; P < 0.05) than medium and high RFI groups (11.2 and 12.1 kg day⁻¹). There were no difference between RFI groups for ADG, TI, TF and TR, visits to the trough and FR per visit (P > 0.05), however, FR per hour was lower (P < 0.05) for low-RFI group (3.1 kg per hour) than medium and high RFI groups (3.7 and 3.9 kg per hour). Medium-RFI group presented lower back width than the other groups (21 vs 22 cm, P < 0.05). The selection for RFI leads to animals with lower intake and lower intake rates with no influence on daily weight gain.

