

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CONVENTIONAL AND VOLUNTARY ELECTRONIC WEIGHING IN BEEF CATTLE

Joslaine Noely dos Santos Gonçalves CYRILLO¹, Sarah Figueiredo Martins BONILHA*¹,
Milena Aparecida Ferreira CAMPOS², André Lasmar GUIMARÃES¹, Juliana Varchaki
PORTES³, Roberta Carrilho CANESIN¹, Renata Helena BRANCO¹

*corresponding author: sbonilha@iz.sp.gov.br

¹Instituto de Zootecnia, Sertãozinho, São Paulo, Brasil;

²Universidade Federal de Goiás, Jataí, Goiás, Brasil;

³Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brasil.

Voluntary electronic weighing enables daily body weight monitoring, reduces management impact on performance and animal welfare, and increases the accuracy of assessments that require longitudinal weighing. This study aimed to correlate residual feed intake (RFI) and its components (metabolic body weight - MBW and average daily gain - ADG) obtained by conventional weighing and obtained by voluntary electronic weighing (VEW). Data were collected from 35 Senepol females, tested at Instituto de Zootecnia, São Paulo, Brazil, for 70 days. Animals had on average 388 ± 20 days of age and 327 ± 36.9 kg of body weight at the beginning of the test. Diet consisted on corn silage, hay, ground corn, soybean meal and mineral salt. VEW was determined by electronics scale Intergado® (Intergado Ltd., Contagem, Minas Gerais, Brazil), coupled to the waterer which weighs the animal at each water intake event. Average daily body weight from VEW (BW_VEW) was used to calculate MBW (MBW_VEW) and ADG (ADG_VEW), which was obtained by the regression of BW_VEW on days in test. Electronic RFI (RFI_VEW) was obtained by the difference between observed and estimated dry matter intake calculated based on MBW_VEW and ADG_VEW. Data were analyzed using CORR procedure of SAS. Mean values for MBW and MBW_VEW were 83.7 ± 6.5 and 88.2 ± 6.6 kg, for ADG and ADG_VEW were 1.12 ± 0.16 and 1.13 ± 0.18 kg d⁻¹ and for RFI and RFI_VEW were 0.00 ± 0.66 e 0.00 ± 0.65 kg d⁻¹, respectively. Pearson correlation coefficient between MBW and MBW_VEW was 0.99 (P<0.001), between ADG and ADG_VEW was 0.58 (P<0.001) and between RFI and RFI_VEW was 0.93 (P<0.001). Spearman correlation coefficient between MBW and MBW_VEW was 0.97 (P<0.001), between ADG and ADG_VEW was 0.51 (P<0.001) and between RFI and RFI_VEW was 0.95 (P<0.001). Although correlation coefficients for ADG were weak, records obtained by electronic scale were sufficiently accurate for RFI calculation.

Keywords: average daily gain, metabolic body weight, residual feed intake, Senepol.

Promoção e Realização:



Apoio Institucional:



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