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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

ANALYSIS OF CORRELATIONS BETWEEN LIVE WEIGHT AND LOIN EYE AREA MEASURED *IN VIVO* IN CATTLE SUPPLEMENTED WITH PASTURE

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The use of loin eye area (LEA) measurement to predict carcass composition is a consolidated measure in the area of meat quality and widely used in body composition studies (LUCHIARI FILHO, 2000). According to Suguisawa et al. (2003), LEA in general is directly related to carcass weight and the yield of commercial cuts from the rear. This study aimed to analyze and compare if there are correlations between performance and LEA. The experiment was conducted at the Princesa do Mateiro farm, in Ribeirão do Largo – BA, totaling 98 days, 33 crossbred steers with a mean initial weight of 328.33 ± 34.95 kg were used, distributed in a completely randomized design, with three strategies (mineral salt *ad libitum*, protein supplement with 20% of protein and protein supplement with 52% of protein at 0.1% of body weight), and eleven replicates each in *Brachiaria brizantha* pastures cv. Marandu. The body measurements of the animals by means of ultrasonic images of LEA in cm² and the subcutaneous fat thickness in mm, were done on images taken between the 12th and 13th ribs in the *Longissimus dorsi* muscle. The LEA measurement was also determined by the correction of live weight (LW), with the LEA divided by the LW and multiplied by 100. The performance evaluation of the animal was determined by the final live weight (FLW) minus the initial live weight and divided by the number of days. The correlation calculations between the variables were performed using Pearson's formula. The measures mentioned, the LEA corrected for 100 kg / LW was the only that presented negative values in relation to the FLW and daily average gain (DAG), which can be explained by the fact of taking influence of the weights. The LEA showed significant correlations between the FLW, DAG, LEA corrected for body weight, height and width, being within the moderate to very high degree (0.3-0.9) proposed by Hopkins (2000). These positive correlations identified shows that the size of the area tends to be larger as the animal develops. Ultrasound measurements showed positive correlations with LW, confirming the assertion that the carcass characteristics are strong indicative of slaughter point to be evaluated *in vivo*, determining the finishing point of the animal.

Keywords: carcass, steers, supplementation

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