





CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## THE RELATIONSHIP BETWEEN CARCASS TRAITS OBTAINED BY REAL TIME ULTRASOUND WITH DIFFERENT TRANSDUCERS AND THOSE IN THE CARCASS OF LAMBS

Felipe Queiroga CARTAXO<sup>\*1</sup>, Wandrick Hauss de SOUSA<sup>1</sup>, Marcílio Fontes CEZAR<sup>2</sup>, Lenice Mendonça de MENEZES<sup>1</sup>, João Paulo de Farias RAMOS<sup>1</sup>, Jhonatan Feitosa do NASCIMENTO<sup>3</sup>, Aianne Batista LIRA<sup>3</sup>, Flávio Gomes de OLIVEIRA<sup>3</sup>

\*corresponding author: felipeqcartaxo@yahoo.com.br

<sup>1</sup> EMEPA, João Pessoa, Paraíba, Brasil

<sup>2</sup> Universidade Federal de Campina Grande, Patos, Paraíba, Brasil

<sup>3</sup> Student of the Graduate Program in Animal Science - UFPB, Areia/PB, Brasil

Ultrasonography can assist in determining the ideal point of slaughter of lambs by measuring muscle depth and subcutaneous fat thickness. Therefore, the objective of this study was to determinate the relationship between traits obtained real time ultrasound with transducers of 3.5 MHz and 7.5 MHz and those obtained in the carcass of crossbred lambs. It were used sixteen Dorper crossbred lambs with 100 days of age and with live weight at slaughter of 21.30 kg. From the 10th day of age the lambs were fed a diet containing 23.3% of crude protein and 2.95 Mcal/kg DM up to 70 days of age remained confined and suckled in the afternoon and evening. From the 70 days of age until the slaughter, the lambs were on paddocks with their respective ewes and received sorghum silage and a ration in the afternoon. The slaughter criterion occurred when the animals reached 100 days of age, when were weaned and slaughtered. An ALOKA 500 ultrasound device with two transducers was used to capture the subcutaneous fat thickness using the 3.5 MHz transducer (USFT35) and the 7.5 MHz transducer (USFT75). It was also measured the depth of the longissimus dorsi muscle using the 3.5 MHz transducer (UMD35) and the 7.5 MHz transducer (UMD75) in the site between the 12th and 13th thoracic vertebrae on the left side of the animal. It was used the procedure PROC CORR of the SAS program (2001). The hot carcass weight, body score and hot carcass yield showed a highly significant correlation with USFT75, UMD35, UMD75, carcass muscle depth (CMD) and carcass loin eye area (CLEA). The USFT35 was correlated with fat thickness in the carcass (CSFT) and the USFT75 was highly correlated with CSFT and also with UMD35 and UMD75. This indicates that the 7.5 MHz transducer was more accurate in the CSFT measurement of lambs. This fact can be confirmed by the observed values, in which USFT35 measured 1.29 mm, USFT75 0.66 mm and CSFT 0.43 mm. CMD showed a significant correlation with UDM35 and UDM75 and highly correlated with CLEA. CLEA showed a highly significant correlation with UMD35 and UMD75. The 7.5 MHz transducer was more effective in estimating fat thickness in the carcass and that UDM35 and UDM75 can be used as indicative of muscle mass in lamb carcass, in view of the high carcass loin eye area ratio.

Keywords: Key-Words: loin eye area, musculature, sheep, subcutaneous fat thickness

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