Book of Abstracts of the 57th Annual Meeting of the European Association for Animal Production

Book of abstracts No. 12 (2006)
Antalya, Turkey
17-20 September 2006

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In vivo ultrasonic measurements and live weight for predicting carcass quality in Churra Tensina mountain breed lambs

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Forty six single male lambs of Churra Tensina mountain breed with a live weight ranging from 19.9 to 24.4 Kg producers of carcass type *Ternasco*, were scanned by ultrasound (ALOKA model SSD-900, with a 7.5 MHz sounder) to determine *M. Longissimus dorsi* depth and subcutaneous fat thickness between the 10^{th}–11^{th}, 12^{th}-13^{th} dorsal vertebra and 1^{st}-2^{nd}, 3^{rd}-4^{th} lumbar vertebra. Lambs were slaughtered after 24 h. fasting. Carcasses were cooled at 4° C for 24 h. and halved. The left side was divided according to a standardised jointing procedure, based on six anatomically regions: shoulder, long leg, anterior ribs, ribs, flank and neck. Each joint was then dissected into muscle, bone plus remainder and subcutaneous, inter-muscular, kidney and pelvic fat.
The *in vivo* ultrasound measurements plus slaughter weight were fitted to predict carcass tissue composition by Stepwise regression analysis.
All the developed models were highly significant ($P<0.001$) and explained 70, 51, 82, 56, 59 and 41 % of the muscle, bone plus remainder, subcutaneous, inter-muscular, kidney and pelvic fat variation respectively. The models residual standard deviations were lower than 124.3 g.

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Slaughter value evaluation of large weight Ile de France and Hungarian Merino lambs by CT and traditional slaughter cutting

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The slaughter value of two sheep breeds, Hungarian Merino (HM) and Ile de France (IdF) has been compared, by investigation of ten lambs of each genotype and sex on the day before slaughter. CT-images were taken from individuals from occiput to knee.
The individuals were slaughtered at ~30 kg live weight and categorized according to the S/EUROP carcass qualification method. After 24h cooling the cut halves were divided according to the slaughterhouse practice applied in Hungary, then boned. The divided parts were classified to 1^{st} class (roast meat) and 2^{nd} class (non-roast meat) quality categories.
Close correlations were stated in both genotypes between the tissue (fat, muscle, bone) area results calculated from the CT-images and the weight data measured after slaughter. There was also a favourable correlation between the numbered „body conformation" values of the S/EUROP cut body, and the measured slaughterhouse cutting and boning values.
Cut halves of the IdF lambs were superior to the HM lambs mainly in the pieces of roast meat category. The muscle tissue areas of the IdF lambs were always superior as compared to HM lambs of the same live weight. A bit higher fat incorporation was verified in the IdF individuals by both the CT-images and slaughterhouse evaluation.