



Animal Genetics



Animal Nutrition



Animal Management  
and Health



Animal Physiology



Cattle Production



Sheep and Goat  
Production



Pig Production



Horse Production

The Book of Abstracts represents the main publication of the 47th Annual Meeting of the European Association for Animal Production in Lillehammer from 25 - 29 August, 1996. It contains abstracts of the invited papers and contributed presentations including posters. The Book of Abstracts contains 675 abstracts in total.

The meeting has sessions in the fields of Animal Genetics, Animal Nutrition, Animal Management and Health, Animal Physiology, Cattle Production, Pig Production, Sheep and Goat Production, and Horse Production. In addition joint sessions on topics related to several disciplines or species are included.

Book of Abstracts, EAAP - 47th Annual Meeting, Lillehammer, 25 - 29 August, 1996



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**Ultrasonic measurements for predicting carcass quality and body fat depots in ternasco of Aragon-Spain**

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The accuracy of the use of nine ultrasonic measurements of lumbar fat thickness, nine measurements of longissimus dorsi depth, three measurements of sternal fat thickness, for predicting the carcass quality and body fat depots were assessed in 24 live Aragon lambs. The 48 and 47 of the variation in KKCF and intermuscular fat, respectively, were accounted for by variation in body weight. The 24 and 20% of the variation of subcutaneous and omental fat, respectively, were accounted for by variation in the sternal fat thickness measurement taken in 2nd sternebra and the inclusion of body weight increase for a further 28 and 15% of the variation in the weight of these body fat depots. The sternal fat thickness measurement taken in 2nd and 3rd sternebra accounted for 53% of the variation in muscle weight. Forty four per cent of the variation in the total carcass fat was accounted for by variation in body weight and the inclusion of sternal fat thickness taken in 2nd sternebra, the lumbar fat thickness taken between the 3rd-4th and between 1st-2nd vertebrae, increase for a further 21, 7 and 8%, respectively, of the variation.

**Ultrasonic measurements for predicting carcass quality in live goats**

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The accuracy of the use of nine ultrasonic measurements of lumbar fat thickness, nine measurements of longissimus dorsi depth, four measurements of sternal fat thickness, for predicting the quality of different carcass joints were determined in 27 adult Blanca Celtibérica goats ranging in sternal body condition score from 1.5 to 4.5. The sternal measurements taken in 2nd, 3rd and 4th sternebra were the best predictors of all different fat depots in different carcass joints. Between 65% and 85% of the variation in muscle were accounted for by variation in ultrasonic muscle depth assessed between the 3rd/4th and the 5th/6th lumbar vertebra. The inclusion of an ultrasonic measurement assessed in the sternum and the ultrasonic lumbar fat thickness as independent variables in a multiple regression improved the precision of muscle prediction (82 and 92% of the variation explained).

**Ultrasonic measurements in live goats. Prediction of weight of carcass joints**

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The accuracy of the use of nine ultrasonic measurements of lumbar fat thickness, nine measurements of longissimus dorsi depth, four measurements of sternal fat thickness, for predicting the weight of carcass joints were assessed in 27 adult Blanca Celtibérica goats ranging in sternal body condition score from 1.5 to 4.5. Comparison between the ultrasonic measurements assessed in live goats with the same measurements taken on carcass were established and the best relationships were obtained between the 1st-2nd and the 3rd-4th lumbar vertebrae on the left side. Nevertheless the highest correlations were obtained between the ultrasonic sternal fat thickness and the same measurements taken on carcass. Between 77 and 93% of the variation in weight of carcass joints were accounted for by variation in ultrasonic measurements taken on sternum and lumbar region. The ultrasonic muscle depth assessed between the 3rd-4th lumbar vertebra accounted for 88, 83 and 84% of variation in the weight of main carcass joints: leg, rib and shoulder, respectively.

**The preliminary investigations on adopting live ultrasonic measurements in meatiness estimation of slaughter lambs.**

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The experiment have been carried out on 26 ram lambs of Polish Corriedale and crossbreeds of Polish Corriedale with 50% (24 lambs), and 75% (15 lambs) of Dorset Horn breed in genotype. The lambs were fattened to 30kg of live body weight. Ultrasonic measurements of fat thickness, muscle depth, muscle width and muscle area (M. longissimus dorsi) were performed at the last rib before slaughter. After slaughter and 24 hours of cooling the same measurements of m. l. d. were taken on the carcass. Also the carcass traits like the weight and contents of loin, best end neck, fillet, leg, valuable cuts (loin, best end neck, fillet, leg) were registered. The weight and contents of meat and fat in the leg were recorded as well. The correlations between ultrasonic and after slaughter measurements of m. l. d. were 0.64 for muscle area, 0.47 for muscle width and 0.64 for muscle depth and showed high significance. The correlations between live ultrasonic measurements and chosen carcass traits (the weight of loin, best end neck, valuable cuts, leg and meat weight in the leg) were from 0.34 to 0.44 for muscle area, from 0.28 to 0.44 for muscle depth and from 0.29 to 0.51 for muscle width. We conclude, that live ultrasonic measurements could be useful in live lambs evaluation but require further study.