

## CORRELATIONS BETWEEN FATTY ACID COMPOSITION IN SUBCUTANEOUS TISSUE AND MEAT QUALITY TRAITS IN HYBRIDS FROM DIFFERENT GENOTYPE AND GENDER

Violeta Razmaite<sup>1</sup>, Sigita Kerzienie, Gintautas Švirmickas<sup>1</sup>

<sup>1</sup>*Institute of Animal Science of Lithuanian Veterinary Academy, R. Žebenkos 12, LT-82317 Baisogala, Radviliškis distr., Lithuania; e-mail: razmusv@one.lt*

<sup>2</sup>*Lithuanian Veterinary Academy, Tilžės 18, LT-47181 Kaunas, Lithuania*

**Summary.** The objective of this study was to estimate correlations between the fatty acid composition in subcutaneous tissue and meat quality traits. The data on evaluated meat quality traits and fatty acid composition of Lithuanian indigenous pig x wild boar hybrids from two different genotypes (1/4 and 1/2 wild boar) and gender (entire and castrated males) were used. The traits included cooking loss, water holding capacity, colour, pH (24), dry matter, fat and fatty acids. C16:0 positively correlated with intramuscular fat ( $P < 0.05$ ) in total and 1/4 wild boar genotype groups. Water holding capacity measurements positively correlated with C17:0 ( $P < 0.01$ ), C17:1 ( $0.05 < P < 0.01$ ) in meat from 1/4 wild boar genotype. These associations for hybrids with higher proportion of wild boar (1/2 wild boar genotype) were lower (0.40 and 0.37) compared to 1/4 wild boar genotype (0.66 and 0.49) and were statistically insignificant ( $P > 0.05$ ). Cooking loss measurements negatively correlated with fatty acids ( $P < 0.05$ ) in meat from 1/2 wild boar genotype. C20:0 respectively positively and negatively correlated ( $P < 0.05$ ) with cooking loss and pH only in 1/2 wild boar genotype. Associations between C20:3, C20:4 and water holding capacity, cooking loss were different in 1/4 and 1/2 wild boar genotypes. Castration of wild boar hybrids not affected the associations between fatty acid composition in subcutaneous tissue and meat quality traits.

**Key words:** swine, hybrid, subcutaneous tissue, fatty acid, meat quality, correlation.