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Effect of feeding oilseed feeds, vitamin E supplementation and breed origin on some quality parameters and texture of lamb meat

S u m m ar y

Effects of rapeseed cake and linseed feeding and vitamin E supplementation on the quality and texture profile of *m. longissimus lumborum (MLL)* were studied in rams of Kołuda Sheep (OK) and Ile de France x OK (IFxOK) crossbreds (18 lambs in total) fattened to 32-37 kg body weight. The control group (K) received a standard diet based on cereal components (>50%) and rapeseed meal (SR; 20%). In the diets for experimental groups (MRL), some cereal components and all of SR were replaced with rapeseed cake and linseed (23.5% and 5%, respectively), with additional supplementation of the diet with vitamin E in group MRL+E. Measurements of physico-chemical traits and texture were made on *MLL* samples that were chilled for 24 h at 4°C and then frozen at -20°C. After thawing samples were analysed for pH, post-thaw drip and thermal cooking loss, total and soluble collagen content, tenderness and parameters of texture (hardness, chewiness, springiness, cohesiveness and resilience). Neither of the analysed factors had a significant effect on the content of the components studied and on the physico-chemical traits and parameters *ofMLL* texture. There were characteristic tendencies towards the effect of feeding oilseed feeds and breed origin of lambs on the intramuscular fat content and parameters of meat tenderness after roasting. The use of oilseed components reduced the content of intramuscular fat and the additional supplementation of vitamin E had hardly any effect on the analysed parameters of meat composition and quality. Tendencies were observed for *MLL* tenderness to improve in lambs fed oil plants and to deteriorate in crossbreds sired by Ile de France rams in relation to Kołuda Sheep lambs. The observed effects of the experimental factors on fat content and meat tenderness, which were contrary to expectations, should be verified in further studies.