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Physicochemical properties of meat from lambs fattened  
with a sunflower cake and linseed diet with reference  
to breed origin and muscle type

S u m m a r y

The aim of the study was to determine the effect of using oil components with or without vitamin E supplementation in the lamb fattening diet on meat quality with consideration of breed origin and type of muscle. Analysis was made of *longissimus dorsi* (LD) and *semimembranosus* (SM) muscles from 36 ram-lambs fattened intensively to 32-37 kg body weight. The experiment was conducted with two replications using lambs of the prolific-dairy Kołuda sheep (OK) and its crosses obtained from Ile de France rams (IFxOK) (50% each). Three ram-lamb groups were fed *ad libitum* with different complete diets and supplemental grass hay, group K received a diet based on cereal components and rapeseed meal, group MSL a diet containing sunflower meal and linseed (23.5 and 5%, respectively), and group MSL+E additionally received a 0.2% vitamin E supplement. Both muscles were analyzed for basic chemical composition,  $\text{pH}_{24\text{h}}$ , electrical conductivity ( $\text{EC}_{24\text{h}}$ ), water holding capacity, drip loss and cooking loss, colour and WB shear force. The quality of meat was good regardless of the investigated factors (feeding, breed origin and type of muscle). Feeding oil components with or without supplemental vitamin E and breed origin of the lambs had no appreciable effect on basic chemical composition and physicochemical characteristics of the meat. Muscle type had no significant effect on chemical composition but caused clear differences in several physicochemical characteristics ( $\text{pH}_{24\text{h}}$ ,  $\text{a}^*$  and  $\text{b}^*$  colour coordinates, drip loss, water holding capacity), which were generally more beneficial for *m. semimembranosus* compared to *m. longissimus dorsi*.

**KEY WORDS:** lamb meat / meat quality / oil feeds / breed origin