CARCASS QUALITY ANALYSIS IN LATVIAN DARKHEAD SHEEP

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Summary. Out of sheep breeds in Latvia, Latvian darkhead (LD) belongs to local genetic resources. LD sheep belong to the mutton-wool type and LD meat production is important in Latvia.

The purpose of the research was to clarify what quality lamb carcass can be obtained from LD sheep. We used LD purebred rams up to one year of age, which were kept in comparable conditions, and selected live weight as the primary trait in slaughtered animals.

Results indicated that the age of LD breed rams had a significant effect on live weight of animals prior to slaughter as well as on muscular and fat tissue weight in the carcass. So when rams are slaughtered at the age of 6-12 months, the weight of muscular tissue and fat tissue in the carcass increases.

Rams up to 300 days of age had significantly lower live weight before slaughter (-8.8), slaughter weight (-4.8) and carcass right half weight (-2.2).

Carcass tissue analysis indicated that only muscular tissue weight and percentage muscular tissue in the carcass were significantly lower: –1.8 kg and -4.5% respectively. In other tissue groups, significant differences were not observed. The percentage of bony tissue but not bony tissue weight in the carcass was significantly different. Besides, it was significantly lower in carcass of the 2nd group rams.

In the carcasses of slaughtered LD breed rams the meat to bony tissue ratio was 3.5. In carcasses from rams up to 300 days of age the ratio was 3.0, indicating a lower meat proportion in the carcass. A significantly higher meat to bone ratio was obtained in carcasses of rams with a slaughter age above 300 days. So increasing animal age results in an increased meat to bony tissue ratio. Similar tendency was observed for the muscular to bony tissue ratio in carcasses, where on average it was 2.6 in all slaughtered rams, but in carcasses from rams up to 300 days of age it was 2.2, indicating a lower muscular tissue amount in the carcass.

A significant negative correlation was established between muscular tissue development and muscular tissue proportion in the carcass. A close positive correlation was found between fat tissue assessment and its proportion in the carcass. There was a tendency of carcasses with higher muscular tissue weight having a higher assessment of muscular tissue development. A negative correlation was found between assessment of fat tissue class and fat tissue/muscular tissue assessment, which indicates that the increase in value of one trait results in the decreased value of other trait.

Key words: Latvian darkhead sheep, rams, age, carcass quality.