

Preliminary study on the effects of using rapeseed cake and linseed with or without vitamin E supplementation on the yield and quality of lambs culinary cuts with regard to thermal processing method

S u m m a r y

The effects of fattening lambs with rapeseed cake and linseed and supplementing vitamin E on the yield of culinary carcass cuts and their quality after thermal processing (roasting or grilling) were investigated. Subjects were the carcasses of 18 Koluda Sheep (OK) and OK x Ile de France (IFxOK) ram-lambs fattened intensively to 32-37 kg body weight. The control group (K) was fed a standard all-mash based on cereal components and rapeseed meal, while experimental groups received rapeseed cake and linseed with or without vitamin E (groups MRL and MRL+E, respectively). Analysis was made of main culinary cuts, with roast leg (MPU) being given the most thorough analysis. The experimental factors did not significantly differentiate the yield of culinary cuts (a total of 62.2% on average) except a significantly higher MPU yield in IFxOK compared to OK animals. There was a surprising tendency towards lower fat content of raw MPU in lambs fed diets with oilseed, which was further increased when vitamin E was supplemented (by 4.9 and 10.7%, respectively) as well as an expected tendency towards increased fat content in IFxOK compared to OK animals (by 8.0%). MPU was characterized by significantly greater weight loss after roasting than after grilling (by 13.7 percentage units), with lower water content (by 4.2 p.u.) and higher protein and fat content (by 2.5 and 2.4 p.u., respectively). Feeding and breed of lambs had no clear effect on weight loss, organoleptic score of the analysed cuts after thermal processing, and basic chemical composition of MPU depending on the thermal processing method. The results obtained should be validated with a greater number of animals.