Animal performance and fatty acid composition of lambs fed with different vegetable oils
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Twenty seven lambs were used to investigate the effects of the inclusion of 4% hydrogenated palm oil (HPO) or sunflower oil (SFO) in the concentrate on feed intake, animal performance and fatty acid composition. Animals (16.2±0.27 kg initial weight) were fed concentrate (Control, HPO or SFO) and barley straw ad libitum and slaughtered at 25 kg. Vegetable oils did not affect (P>0.05) feed intake and animal performance. SFO caused an increase (P<0.001) in trans-C18:1 and tended to increase (P<0.10) total CLA in subcutaneous fat. Atherogenicity index was lower (P<0.05) in subcutaneous fat and tended to be lower (P<0.10) in intramuscular fat of lambs receiving SFO. Therefore, SFO improves fatty acid composition of fattening lambs without affecting animal performance.

Effect of abandoning mineral fertilization of pastures on health-promoting value of lamb meat
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The objective of this study was to evaluate the effect of abandoning mineral fertilization of mountain pastures on health-promoting value of lamb meat. Meat (musculus longissimus dorsi) from a total of 20 Polish Mountain lambs was investigated. Two groups of single-horn lambs with mothers were grazed using the rotational system on two separate pastures: E – ecological and unfertilized, and N – intensively fertilized (170 kg N/ha). Stocking rate was 8 lambs on unfertilized pasture and 12 lambs on intensively fertilized pasture. Experimental slaughter was carried out and the nutritionally most important fatty acid fractions were analysed. The results were analysed using analysis of variance. The n-6 to n-3 unsaturated fatty acid ratio in the meat of both experimental groups, despite significant differences, assumed favourable values. 1.47 in group E and 2.13 in group N. The proportion of PUFA in the meat of E ram lambs (27.81 g/100 g of all fatty acids determined) was 21% higher compared to that found in group N (P<0.05). A similarly favourable tendency was found for CLA concentration in rams E (1.88 g/100 g of all fatty acids determined), which was 46% higher compared to that in group N (P<0.05).