EFFECT OF PLASMA LIPOPROTEIN CONCENTRATION ON ENDOCRINE AND MEAT QUALITY CHARACTERISTICS, FATNESS AND FAT COMPOSITION OF HYBRID ENTIRE BOARS

Violeta Razmaitė, Gintautas Juozas Švirmickas, Virginija Jatkauskienė

Institute of Animal Science of Lithuanian Veterinary Academy, R. Žebenkos str. 12, LT-82317 Baisogala, Radviliškis distr., Lithuania, e-mail: razmusv@one.lt

Summary. Hybrid entire boars from Lithuanian indigenous wattle x wild boar intercross were used to establish low and high lipoprotein groups of hybrid animals in which low-density and high-density lipoprotein concentrations differed statistically significantly. The average age of the hybrids with a significantly lower level of plasma lipoproteins was higher and the testosterone concentration was lower compared to the animals with higher concentrations. The backfat thickness and loin area of the boars with a lower concentration of high-density lipoproteins (HDL) and total lipoproteins was higher than of the boars with higher concentrations of these lipoproteins. There were no significant differences in the longissimus dorsi muscle fatty acid composition between the boars with low and high concentration of low-density lipoproteins (LDL). However, the increase of plasma HDL was monitored to relate to possible decrease of C17:0 and C17:1, and increase of C16:1 in longissimus dorsi muscle, and decrease of C18:3n-3 in subcutaneous tissue. The hybrids with lower plasma total lipoproteins had lower content of C17:0 and C18:3n-3 and tended to have lower content of C20:0, C17:1 but have higher content of C16:1 and C20:1 in the longissimus dorsi muscle, and also lower content of C17:0 and C18:3n-3 and higher content of C16:1 and C20:1 in the subcutaneous tissue.

Key words: wild boar, hybrids, LDL, HDL, fatty acids, testosterone.