

EFFECT OF INTROGRESSION OF WILD BOAR INTO LITHUANIAN INDIGENOUS WATTLE PIGS ON FAT COMPOSITION IN PORK UNDER CONVENTIONAL REARING

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Summary. The animals used in the study were females and castrated male hybrids from Lithuanian indigenous wattle pigs and their backcross with wild boar, containing 1/4 of wild boar. The muscles of hybrid pigs had a higher content of dry matter ($P<0.05$) than the muscles of purebred Lithuanian indigenous wattle pigs. The introgression of wild boar into Lithuanian indigenous wattle pigs under conventional rearing conditions slightly decreased ($P=0.072$) the proportion of saturated fatty acids, including C18:0 ($P<0.05$) in intramuscular fat. Although the introgression of wild boar did not appear to affect significantly the proportions of MUFA, the concentration of the individual (C20:1) fatty acid was lower ($P<0.05$) in the meat from 1/4 WB genotype. The proportions of PUFA were insignificantly higher in the intramuscular fat of 1/4 WB genotype compared with purebred Lithuanian indigenous wattle pigs. The introgression of wild boar had a higher effect on the proportions of fatty acids in the subcutaneous tissue compared with the effect on the proportions of fatty acids in the intramuscular fat. The concentrations of SFA ($P<0.001$) were lower in the subcutaneous tissue of 1/4 WB genotype compared with Lithuanian indigenous wattle pigs. The hybrids had lower concentrations of SFA ($P<0.001$), including C16:0 ($P=0.081$), C18:0 ($P<0.001$) and C20:0 ($P=0.052$) acids and higher concentration of C16:1 ($P<0.05$), lower concentration of C20:1 ($P<0.01$) and higher concentrations of PUFA ($P<0.05$). Also, there was a more favourable PUFA/SFA ratio ($P<0.01$) in the subcutaneous tissue of hybrids compared with purebred pigs. Gender had a higher effect on the fatty acid composition in the intramuscular fat and subcutaneous tissue from Lithuanian indigenous wattle pigs compared with the gender effect on the fatty acid composition in 1/4 WB genotype hybrids.

Keywords: swine, wild boar, introgression, fatty acids, intramuscular fat, subcutaneous tissue