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Fatty acid composition in the wild boars muscles from different regions of Poland

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Abstract

Meat and meat products are one of the most relevant food groups in the human diet due to high content of protein. Meat from wild animals is considered a delicacy and commands a high price compared to other sorts of meat. Due to the characteristic sensory properties (taste), lower fat and cholesterol contents and higher share of polyunsaturated fatty acids (PUFA) a growing interest of this meat is noted^(1,2).

The aim of the study was to compare fatty acid profile in wild boars muscles depending on the feeding grounds.

The research material consisted of 37 samples of wild boars (*Sus scrofa*) muscles from three different regions in Poland: Warmia and Mazury, Podlasie and Silesia. The fat was extracted from the muscle samples by the Folch method. The fatty acid (FA) composition was determined after the acids were trans-methylated according to the Peisker method. Chromatographic separation was performed using an Agilent Technologies 7890A gas chromatograph with a flame-ionization detector (FID).

The average share of sum of saturated fatty acids (Σ SFA) in wild boars fat from Warmia and Mazury, Podlasie and Silesia regions were 41.5%, 39.6% and 38.8%, respectively. In wild boars fat from Silesia the highest share of sum of monounsaturated fatty acids (Σ MUFA) was found (46.9%), while in wild boars fat from Warmia and Mazury, Podlasie it accounted for: 44.4% and 39.9%, respectively. A similar share of Σ PUFA (approx. 14%) was determined in wild boars fat from Warmia and Mazury, and Silesia region, whereas in those from Podlasie region Σ PUFA accounted for approx. 12%.

Meat fat from wild boars is a valuable source of fatty acids with a beneficial impact on human health. However, the fatty acids profile depends of the region, which indicated the predominant influence of the animal's feed on FA composition of meat fat.

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Conflict of Interest

"There is no conflict of interest".

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