

## ANALYSIS OF PORK AND BEEF CONTAMINATION WITH ORGANIC CHLORINE COMPOUNDS

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**Summary.** The analysis of contamination with organic chlorine compounds (OCHC) in meat samples, taken from different parts of Lithuania, is presented. The amounts of DDT and its metabolites DDD, DDE, hexachlorocyclohexane, polychlorinated biphenyls in pork and beef muscular and adipose tissues were determined with the use of gas-chromatography. It was determined that meat is mostly contaminated with DDT and its metabolites DDD, DDE and that the OCHC contamination of adipose tissues is higher than that of muscular tissues: OCHC amounts in pork's adipose tissues are three to four times bigger than in muscular tissues, in beef's case - two times. The level of OCHC toxicity depends not only on concentration and duration of contamination, but also on the level of chlorination, the position of chlorine atoms in molecule, isomeric composition of pollutant mixture, so it's important to identify the derivatives of OCHC. In order to determine, what kind of OCHC derivatives are present in adipose tissues alongside the gas-chromatography mass-spectroscopic analysis was made. After comparison between spectrums of analysed samples and standart solutions it was determined that polychlorinated biphenyl derivative in adipose tissue is 2,2',3,4',5',6-hexachlordifenil.

**Keywords:** contamination, organic chlorine compounds, muscle tissue, adipose tissue, mass spectra.