

FOOD CONTAMINATION WITH CHLOROORGANIC COMPOUNDS

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Summary. Contamination of food with persistent chloroorganic pesticides is a serious hazard to human health. The aim of this study was to determine students' exposure to chloroorganic insecticides ingested with food. The content of lindane, as well as 1,1,1-trichlor-2,2-di(4-chlorophenyl)ethane (DDT) and its metabolites, were determined by gas chromatography in duplicates of 30 daily food rations of the students of the Faculty of Food Sciences of the University of Warmia and Mazury in Olsztyn, collected during three winter months of 2005. Only in one ration 1,1,1-trichlor-2,2-di(4-chlorophenyl)ethane (DDT) was detected at level of 0.0564 mg/kg fat; 1,1-dichlor-2,2-di-(p-chlorophenyl)ethene (DDE) was detected in all samples (0.0105 mg/kg on average, ranging from 0.0017 mg/kg to 0.0546 mg/kg), and 1,1-dichlor-2,2-di-(p-chlorophenyl)ethane (DDD) – in five samples (0.0325 mg/kg on average, ranging from 0.0022 mg/kg to 0.1433 mg/kg), respectively. The examined diets (except for the one containing DDT) supplied a daily average of 0.0004 mg/kg ΣDDT, which accounts for 0.06 % acceptable daily intake (ADI).

Key words: diet, DDT, lindane, food safety