

PESTICIDE RESIDUES IN APPLES (2005–2010)

BOŻENA ŁOZOWICKA*, PIOTR KACZYŃSKI

Abstract: Fruit and vegetables constitute an essential part of human diet and that is why they should be “safe”. Chemical contaminants of plant origin in food, including the pesticide residues, are defined as critical differentiators of quality and food safety. Pesticide residues are found in fruits, vegetables, cereals and herbs chemically protected at low concentrations, but they are one of the elements that affect the quality of healthcare.

The aim of this study was to assess the pesticide residues in apples from the north-eastern Poland (Lubelskie, Podlaskie and Warmińsko-Mazurskie provinces) and get an answer whether any contamination in fruit from the region is similar to that in other countries and whether it can lead to exposure of consumer’s health. Also assessed compliance of used pesticides with applicable law and found residues were compared with the Maximum Residue Levels (MRLs).

The study showed that 59% of the samples of apples from the north-eastern Poland contain pesticide residues below the MRL, and 7% above the limits. The estimated dietary intake has shown the chronic dietary exposure of the most vulnerable groups – children and adults to the pesticide residues in Polish apples was relatively low and does not constitute a health risk to. The results show that apples from north-eastern Poland are safe.