

## ORGANOCHLORINE COMPOUNDS: TROPHIC CHAIN TRANSFER

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**Background and Aims:** Persistent Organic Pollutants (POPs) are capable to migrate for long distance, persist in the environment for long years, cumulate in environmental media, food-stuffs, and adipose tissues of animals and humans.

**Methods:** Generally accepted gas-chromatography method of analysis was performed to determine residues of Heptachlor, HCH, DDT, HCB in samples of food from different regions of Armenia.

**Results:** Despite the prohibitive actions, the residual amounts of DDT continue to be revealed in foodstuffs, environmental media (soil, surface water) and even human organism.

DDT content in eggs made 0.07-635.0 mcg/kg, in meat: 0.67-4.45 mcg/kg, in milk: 0.16-1.45 mcg/L, in cheese: 0.19-7.11 mcg/kg.

HCH in eggs made 0.07-1.72 mcg/kg, Lindane – 0.35-0.73 mcg/kg. In meat residues leveled 0.09-1.61 mcg/kg, while Lindane amounted 0.23-0.7 mcg/kg. In samples of milk HCH made 0.02-1.23 mcg/L; residues of Lindane 0.06-2.25 mcg/L. In cheese residues of HCH and Lindane were at 0.20-3.18 and 0.03-5.17 mcg, appropriately.

Monitoring on Hexachlorobenzene (HCB) in foodstuffs from different regions of Armenia signifies to presence of this pesticide in eggs within the range of 0.008-4.54mcg/kg. In samples of meat HCB ranged 0.028-9.16mcg/kg; residues in samples of milk leveled to 0.009-0.74 mcg/L, while in samples of cheese the compound made 0.1-15.65 mcg/kg.

Residues of Heptachlor in eggs made 0.023-0.12 mcg/kg, in meat 0.024-4.23 mcg/kg, in samples of milk 0.023-0.12 mcg/L. In samples of cheese Heptachlor was not revealed, except 1 sample (0.153 mcg/kg).

**Conclusions:** As residues of all investigated pesticides were revealed in eggs and meat, the findings testify to fresh application of POPs (DDT and HCH).

Contamination of agricultural lands and food-stuffs by pesticide residues poses threat for the environment and human health. Therefore, issues of pesticides management should not be considered as problems of exceptionally ecological significance.