

## PS-015. Pesticide Residues in Drinking Water

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For a healthy population accessing safe water sources are very important. However, ground water sources may be affected by some pesticides used in agricultural areas. After usage against pests, pesticides transmit to water sources. Minimum amount of pesticide residues can prevent development of zooplankton and phytoplankton, which are very important in food chain of aquatic lifeforms. In his thesis in order to determine 18 organochlorine pesticide residue levels in drinking water samples around Eber Lake, Karamık Lake and Afyonkarahisar, Kuş found that the levels of pesticides other than heptachlorepoxyde and  $\alpha$ -endosulphane were above the maximum level permitted by the standards of the European Union. In the analysis research of pesticides in drinking water in Aksaray made by Hınıs, in raw drinking water sources, some amount of pesticide was found close to the maximum limit specified. In a research made in Sweden to analyze 23 regional water sources, pesticide residues were detected in 18 sources. Pesticide levels in 9 drinking water have been determined above the threshold value. Ground and underground water sources collected from agricultural areas of Italy, were analyzed for 43 pesticides and their metabolites. 12 of them were detected over European pesticide threshold and stated that, their quality was below the WHO criteria. In Mekong River Vietnam in drinking water samples taken from different sources 15 commonly used pesticides were detected. 12 of them have also been identified on the limit values set by the European Commission. Pesticides affect water systems mostly. Because of water contamination with pesticides, water sources become insufficient and aquatic lifeforms are affected negatively. Nowadays, prohibiting or completely removing pesticides is impossible, therefore to minimize the level of negative effects to environmental health, some precautions should be made.

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