Abstract

Pesticides, as substances extensively used in agriculture, are applied worldwide for the control of pest and disease vectors; and play an important role among the substances to which man is exposed. Information about the impact of its use on food quality, human health and environmental pollution in Argentina is available since the 70s. As a major agricultural producing country, the application of growing quantities of pesticides had, and still has, its impact on the quality of the environment. An important agricultural change, occurred in recent years in Argentina, was the introduction of glyphosate-resistant transgenic soy bean, which brought a significant increase in crop yields and sown areas, but it has also generated a considerable increase of the use of a technological package based on genetically modified seeds, glyphosate and other pesticides such as endosulfan, chlorpyrifos and pyrethroids. The results of recent research leaves no doubt about the potential risk of contamination, either by drift during pesticide application or leaching flows, generating potential risks to aquatic biota and humans, especially by pesticides cypermethrin, chlorpyrifos, endosulfan and glyphosate. While organo-phosphorus pesticides (POF) cause neurobehavioral alterations in young people, levels of biomarkers of exposure to organochlorine pesticides (OCPs) in biological fluids of environmentally exposed humans tend to decrease, probably due to the prohibitions and restrictions on its use. In parallel, research results indicate probable cytotoxic and genotoxic effects of glyphosate which is worrisome, since it would involve a potential risk to human health and to the environment.

Keywords

Pesticides, environmental impact, human contamination.