**The Effects of Pesticides on Human Health and the Environment**

**Abstract**

The world population is increasing very rapidly and in an uncontrolled manner. Despite this, a product cannot be provided to meet this increase and the need for food is gradually increasing. Today, chemical substances called "pesticides" are used in the fight against various pests to increase productivity in our country and the world. It is known that global pesticide sales increased by 289% only in the years 2000-2010. Studies are revealing the relationship between these pesticides with mutagenic, teratogenic, endocrine-disrupting, neurotoxic, and immune system disrupting effects, including increased risk of cancer, infertility, increased congenital anomalies, early pregnancy losses, Parkinson and autism. Studies conducted between individuals engaged in agriculture and exposed to pesticides and individuals who are not exposed to these compounds also reveal the cytotoxic effects of pesticides. 0.0015-6% of the pesticide applications reach the target organism, the remaining 94-99.9% reach the non-target organisms and the soil in the agroecosystem or mix into the natural ecosystems and water as chemical pollutants. In a study examining the pesticide level in breast milk by chromatographic methods, various types and levels of pesticides were detected in 96% of 80 women. Some of these pesticides have been determined to be highly harmful, restricted, or even banned pesticides such as Dichlorodiphenyltrichloroethane (DDT), dichlorodiphenyldichloroethylene (DDE), hexachlorocyclohexane (HCH), and Hexachlorobenzene (HCB).

Pesticides and their effects have the potential to be an important health problem affecting the whole society. This study aims to reveal the properties of pesticides, their effects on human health and the environment, and to make visible the sustainable alternative solution possibilities that can be applied at the solution point.

**Keywords:** Pesticides, Health, Environment