

## The Kinetic Study of Glyphosate Leachate in Palestinian soil at Different Concentrations.

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In Palestine many factors affect the soil, surface and ground water. The extensive use of pesticides, fertilizers in agriculture, as well as disposal of wastewater from Israeli settlements in the West Bank, are also cited as contaminating the soil and further reducing the water resources available for Palestinians. Hazards chemicals including their intermediate metabolites may reach ground water and contaminate it. In recent years, pesticides were used heavily in Palestine, which led to the contamination of soil and water and causing much disease. Many studies focused on the impact of pollutants such as pesticides and oil on soil and how does it affect on humans, animals, plants and the environment in general. There are many factors affecting leachates of glyphosate to ground water as properties of the pesticide; chemical content, persistence, adsorption, solubility, volatility, and properties of glyphosate. Properties of the soil; permeability, Soil Texture, soil structure, organic matter, soil moisture and site conditions including rainfall and depth to ground water and sinkholes and bedrock were studied. In this study, the effect of glyphosate and its movement and distribution in soil columns were studied. The results of physical and chemical properties of soil were studied. The kinetic studies showed that the adsorption of glyphosate was first order and followed the Freundlich isotherm pattern.