

Special Issue

Pesticides in the Environment: Impacts and Challenges in Agriculture

Message from the Guest Editor

Pesticides which enter the soil environment are subject to various degradative processes, such as microbial degradation, chemical hydrolysis, photolysis, volatility, leaching, and surface runoff. The degree to which each mechanism will contribute to the overall degradation of the pesticide is in turn dependent on the physicochemical properties of the pesticide, the characteristics of the soil (pH, organic matter content, microbial biomass, and redox status), environmental conditions (temperature and moisture), and management practices (application rate and formulation type). Most pesticides cause adverse effects when reaching soil organisms. The intensity of the toxic effect varies with time, dose, organism characteristics, environmental presence, or pesticide characteristics. Their presence in environments determines the dose and time at which an organism is exposed, and could represent a hazard for worldwide life due to their mobility. Hence, the persistence in the environment leads to a risk for life. In that sense, this Special Issue aims to understanding bioremediation as applied to a wider range of contaminated sites and chemicals.

Guest Editor

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