**DEGRADATION OF PESTICIDES**

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**ABSTRACT**

Pesticides are compounds or combination of substance used to control, eradicate, or otherwise deal with pests. Depending on how they are used and how much we use of them, numerous types of pesticides have been created. Microbial activity has an impact on pesticide destiny in the environment. Some pesticides are easily destroyed by microbes, whereas others have proven difficult to break down. Pesticides disintegration is the technique that occurs when a pesticide is changed into an inert substance that is compatible with the environment of the location to which it was administered. Around the world, 1 to 2.5 million tons of active pesticide components are reportedly used annually, primarily in agriculture. Herbicides make up 40% of the market, followed by insecticides and fungicides. Pesticides are used extensively in both urban and agriculture environments. Use of pesticides is a significant contributor to the environments. Use of pesticides is a significant contributor to the environment’s dispersed chemicals. Chemical pesticides are overused, which depletes the earth’s natural resources and creates an ecological imbalance. Pesticides have been connected to birth abnormalities, cancer, Alzheimer’s disease, and autoimmune hepatitis. Pesticides may also have negative effects on the endocrine, reproductive, and neurological systems. Chemical and microbial degradation are the two main processes used to break down insecticides. Chemical degradation happens as a result of processes like photolysis, hydrolysis, oxidation, and reduction; microbial degradation refers to breakdown aided by microbes. Microorganisms break down the complex molecule into simple molecules depending on different conditions of temperature, moisture, pH, and absorption. Therefore, keeping in mind the role of various degradation strategies to mitigate or prevent the harmful effect of pesticides, we are reviewing various developed methods of degradation for pesticides in this article. This article presents a detailed study of pesticide degradation methods developed and being developed by different research groups worldwide.