

Preface

Pesticides are usually referred as a broad range of insecticides, fungicides and herbicides. Presently, there are 900 pesticide products and 600 active pesticide ingredients available in the market. Although millions of tonnes of pesticides are applied in the agriculture and horticulture, less than 5 % of pesticides only reach to the targeted organisms and rest gets deposited on the soil and non-targeted organisms and also moves to water bodies and the atmosphere. The fate of these pesticides is governed by the abiotic factors (temperature, moisture, soil, pH, etc.) as well as biological and chemical reactors. Abiotic degradation of pesticides is mediated by oxidation, reduction, hydrolysis and photolysis and rearrangement, while biotic degradation is caused by both microbial communities (bacteria, fungi, etc.) and plant species.

In view of the above facts, the editor has compiled the latest developments on biodegradation of chemical pesticides used in agriculture in this edited volume contributed by Indian and foreign scientists which will serve as a ready reckoner not only to scientists, but also to policymakers, teachers, students and the farmers.

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