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.

In this endeavour, I would like to thank all the contributors for their positive response and active participation by contributing the latest updates on the degradation of different chemical pesticides. I would like to thank my research scholars Ms. Nitanshi Jauhari and Mrs. Shweta Mishra for their academic and technical support. Besides, untiring support by Mr. Dilip Kumar Chakraborty in preparing the book manuscript is heartily acknowledged.

Lastly, I would like to thank my family members: Mrs. Manorama Singh (wife), Ragini (daughter) and her kids Antra and Avantika and Pritish (son) and Vishali (daughter-in-law) for their inspiration, endurance and moral support in this endeavour.

Lucknow, India

Shree Nath Singh