
Preface

Recent advances have shown that horticulture could become an environmentally benign technology. Horticulture causes much less degradation of the natural resources than agriculture. It is well known that phytonematodes are of major concern to a wide range of horticultural crops grown worldwide, which cause sufficient crop damage and severe loss in the yield. Plant-parasitic nematodes pose an enormous problem for global horticultural security. In the first instance, there is a lack of complete knowledge on precise identity/diagnosis of strains of few damaging nematode pathogens that currently exist. Potentially most dangerous phytonematodes are genetically variable, which stands as a warning that genetic uniformity of even a small part of the genome of a widely grown crop risks the hazard of a major epidemic of a nematode with the ability to exploit the trait(s) that it governs.

However, detailed and latest information on major aspects of phytonematodes associated exclusively with horticultural crops is lacking. Hence, it was thought to present a comprehensive book that covers some major nematode topics of relevance to horticulture. The purpose of this book is to highlight the significance of phytonematodes in horticulture. It also provides basic information on plant-parasitic nematodes since it is required for a better understanding of advanced topics. Several popular topics, information on which is already available in plenty, have been avoided. Thus, this book explicates both the essential fundamental and advanced aspects pertaining to nematodes associated with horticultural crops.

The book is conveniently divided into 13 chapters, which cover the latest information on the major fundamental and advanced aspects related to phytonematodes including the role of phytonematodes in horticultural industry, phylogenetic and evolutionary concepts in nematodes, major phytonematodes associated with horticultural crops and their diagnostic keys, symptoms caused by phytonematodes and disease diagnosis, nematode population threshold levels, crop loss assessment, nematode diseases of horticultural crops and their management, nematode disease complexes, genetics of nematode parasitism, important nematological techniques, and nematodes of quarantine importance. One chapter in particular can be singled out for special comment. An exclusive chapter on novel methods of nematode management has been included mainly to provide information on the latest molecules and novel modes of managing nematodes attacking horticultural crops. Routine nematode management aspects, information on which is already available,

have not been discussed; instead, this topic reflects the changing scenario of future nematode management.

This comprehensive book can serve as a friendly guide to meet the requirements of the students, teachers, and researchers interested in these “hidden enemies” of the grower, apart from the research and extension personnel working under public organizations, officials of state departments of horticulture and forestry, field workers, and all those concerned and working with plant-parasitic nematodes. Appropriate diagrams, convincing tables, and suitable graphs/illustrations have been furnished at the right places. A bibliography providing the list of references cited has also been included at the end.

The author appreciates receiving suggestions and constructive criticism that would improve the quality of the book (e-mail: ravichandrang_3@yahoo.co.in).

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