Preface

This treatise on plant propagation has grown out of the materials used by the author in post-graduate teaching and in dealing with a wide range of nurserymen's problems. The primary objective of this book is to provide a balanced general text emphasising the principles of plant propagation (both sexual and asexual) to the students of horticulture or related subjects. A further objective is to enlighten the nurserymen with regard to various practical problems by providing the ways and means of solving these problems.

The book comprises of 14 chapters, arranged in a sequence approximately representing the historical development of plant propagation. In Chapters 1 and 2, the student is oriented in the area of study and is provided with a foundation to build his knowledge on plant propagation. This part of the text is presented briefly and concisely so that the students may proceed promptly into the applied aspects of propagation. The skills and practices of different propagation methods and bases for their use are covered thoroughly with numerous illustrations in Chapters 4-13. These will be helpful to anyone interested in plant propagation. All the latest developments in propagation techniques have been discussed in details. For example, the inarching, the ever-popular method of propagation of mango, is now being replaced by superior methods like veneer grafting, chip budding or epicotyl grafting. Every detail of such methods is given with proper illustrations.

Micro-propagation, a new concept in vegetative propagation, has many advantages, and opens up immense possibilities in rapid multiplication of disease-free plants of superior vigour and productivity. Chapter-12 covers the various aspects of micro-propagation including tissue and cell cultures.

Production of F_1 hybrid seeds, testing viability, seed certification and seed control have been dealt in details keeping in view the requirements of students of Seed Technology (Chapter 4).

In Chapter 14, encyclopedic coverage of the commercial methods of propagation of important fruits and nuts, plantation crops, vegetables, ornamental shrubs and trees, house plants and medicinal plant is given.

It is hoped that this textbook will prove to be an ideal aid to teachers and students of horticulture and seed technology as a source of reference and as a contribution to more efficient propagation of horticultural plants, and lead to an increased appreciation of the importance of the subject with which it deals.

A book is a product of many people. I am indebted to many of my colleagues who have read and corrected one or more chapters of the manuscript. I am also grateful to the hundreds of students who have been in my class in

Horticulture during the last 15 years. Many of the students have given comments and suggestions on course content and teaching. Their ideas and reaction were a guiding factor in organizing and developing this book. I am indebted to Shri B.K. Dutta for typing the manuscript and Shri Adinath Bose, Shri Jayanta Ghosh and Shri Nisith Roy for the artwork of this book.

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