
PREFACE

As a part of plant science, plant reproduction is concerned with the study of production of new plants through asexual and sexual processes. It focuses on the crucial aspects of asexual reproduction, which include vegetative reproduction and apomixis and sexual reproduction, which include processes like meiosis and fertilization. This book presents the different concepts and methods related to the field of plant reproduction. Different approaches, evaluations and methodologies have been included in it. This textbook aims to serve as a resource guide for students and experts alike and contribute to the growth of the discipline.

Given below is the chapter wise description of the book:

Chapter 1- Plant reproduction is the production that occurs in plants. It can either be sexual or asexual reproduction. Flowering plant, stamen, stigma and vegetative reproduction are some of the significant and important topics related to plant reproduction. The following chapter unfolds its crucial aspects in a critical yet systematic manner.

Chapter 2- A seed usually consists of an embryo and a seed coat. Seeds store essential nutrients required for the growth of the plant. Seed dispersal, seedling and cotyledon are natural methods of plant propagation. The chapter on seed and germination process offers an insightful focus, keeping in mind the complex subject matter.

Chapter 3- The transfer of pollen from the male to the female part of the plant is known as pollination. There are two types of pollinations that occur, self-pollination and cross-pollination (xenogamy). A pollinator is an animal that aids in a plant's pollination. This chapter is an overview of the subject matter incorporating all the main aspects of pollination.

Chapter 4- Plant breeding is the act of changing certain traits of plants to generate preferred features. The techniques used in the process of plant breeding range from simply selecting desirable characteristics in plants to complex molecular techniques. Doubled haploidy, plant propagation and genetically modified crops are some of the topics related to plant breeding that have been discussed in the following section. The topics discussed in the chapter are of great importance to broaden the existing knowledge on plant reproduction.

Chapter 5- Micropropagation is a process of choosing the kind of plant material that needs to be propagated. The steps taken in this procedure are establishment, multiplication, pretransplant and transfer from culture. In order to completely understand micropropagation and plant hormone, it is necessary to understand the processes related to it. The following chapter elucidates the varied processes and mechanisms associated with this area of study.

At the end, I would like to thank all those who dedicated their time and efforts for the successful completion of this book. I also wish to convey my gratitude towards my friends and family who supported me at every step.

Editor