

(As per 6th Deans' Committee Recommendation)

Seed Biology, Biotechnology, Production and Management

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Preface

Seed Biology, Biotechnology, Production and Management (As per 6th Deans' Committee Recommendation) book have been written keeping in view the course requirement of UG degrees of different universities in Seed Science and Technology and also Biotechnology. The book covers many aspects of seed technology and also Biotechnology was created in accordance with the UG syllabus suggested by the 6th Dean's Committee viz., Seed structure, seed development and maturation, seed germination. Seed senescence- causes, quality characters. Molecular seed biology: gene expression during seed development, molecular markers and seed quality, omics technologies in seed research and male sterility systems. Biofortification and seed enhancement, seed coatings and treatments, biopesticides and biofertilizers. Advances in seed biotechnology, sustainable seed production practices and future challenges and opportunities in seed science. Principles of quality seed production. Factors affecting quality seed production. Causes of varietal deterioration and maintenance of genetic purity during seed production. Post-harvest handling of seeds - threshing methods - drying methods - advantages and disadvantages. Seed processing principles and sequencing. Seed enhancement technologies (coating, priming, pelleting and hardening)

Over the past few decades, there has been a significant advancement in the field of seeds. There are now enough developments in some areas of this field to provide solutions for problems in the real world. Attempts to address these problems, however, usually raise new issues or provide answers for simpler problems. This book is a collection of chapters that cover different aspects of seeds, all of which have important implications for crop management and use. The book is divided into twenty one chapters. In each chapter, the principles are covered along with examples of how they can be used to develop tools that increase crop productivity. This book includes twelve chapters that offer useful information about seed biotechnology.

Thus, a successful approach is developed by integrating all these components of the field's foundations for the benefit of educators, researchers, students, and farmers engaged in seed science and technology.

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