

ISBN: 978-81-19238-83-5 e-ISBN: 978-81-19238-76-7

Pages: 250 2024

Printed Copy

Hardbound ₹ 2995/-

MODERN PLANT BREEDING

The book 'Modern Plant Breeding' is recommended for students, teachers and researchers involved in the education and research related to the crop improvement work. The book intends to impart knowledge of recent advancements in techniques and strategies being adopted in modern plant breeding activities. There are twelve chapters in this book covering illustrated content on role of plant genetic resources and gene introgression strategy for its utilization, molecular marker-assisted breeding, QTL mapping applications, high throughput phenotyping and tissue culture perspective in crop improvement, genomic selection in wheat, allele mining approach in cereals, RNAi-mediated gene silencing in vegetable crops, accelerated plant breeding for quality traits in pulses, requirement of speed breeding in oilseed Brassica improvement and available bioinformatics resources in modern crop breeding research. Each chapter discusses the respective subject as comprehensively as possible. Chapters on various modern approaches viz. molecular plant breeding, QTL mapping, allele mining, genomic selection, gene silencing, high throughput phenotyping and speed breeding technology are described in detail with figure illustrations. As such, the book provides a much-needed reference guide for postgraduate students around the globe, particularly in India.

Gita R. Chaudhari | Krishna Prakash | Sheetal R. Patel

(Contents)

- Role of Plant Genetic Resources in Modern Crop Breeding
- Gene Introgression: Strategy for Utilization of Crop Genetic Resources
- · Molecular Marker-assisted Breeding in Crop Plants
- Recent Advances in QTL Mapping and its Applications in Crop Breeding
- · Genomic Selection for Wheat
- Allele Mining Approach in Cereal Crops
- RNA interference (RNAi)-mediated Gene Silencing: A New Avenue of Vegetable Crop Improvement

- Recent Advances in High Throughput Phenotyping for Crop Improvement
- Accelerated Plant Breeding for Quality Traits in Pulses: Prospects and Path ahead
- Speed Breeding: Advantages and Need in Oilseed Brassica Breeding Program
- · Perspectives of Tissue Culture in Crop Improvement
- Bioinformatics Tools and Resources for Crop Breeding Research

