

1. Record Nr.	UNINA9910877384403321
Autore	Janick Jules
Titolo	Plant breeding reviews . Volume 33 [[electronic resource] /] / edited by Jules Janick
Pubbl/distr/stampa	Hoboken, N.J., : J. Wiley & Sons, Inc., 2010
ISBN	1-282-68910-X 9786612689109 0-470-53548-2 0-470-53547-4
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (383 p.)
Collana	Plant breeding reviews, , 0730-2207 ; ; v. 33
Altri autori (Persone)	JanickJules
Disciplina	631.5/3/05 631.52
Soggetti	Plant breeding
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	PLANT BREEDING REVIEWS Volume 33; Contents; Contributors; 1. Dedication: Major M. Goodman: Maize Geneticist and Breeder; I. Biographical Sketch; II. Scientific Achievements; III. Service to Humankind; IV. Mentor and Colleague; V. Publications of Major Goodman; Literature Cited; 2. Enhancing Abiotic Stress Tolerance in Cereals Through Breeding and Transgenic Interventions; Abbreviations; I. Introduction; II. Natural Genetic Variations and Trait-Based Breeding; III. Enhancing Adaptation to Abiotic Stresses Through Breeding and Transgenic Intervention; IV. Outlook; Acknowledgments Literature Cited3. Verticillium Wilt in Solanaceous Crops; I. Introduction; II. Causal Pathogen; III. Host Plant Resistance; IV. Disease Management; V. Breeding Resistant Cultivars; Acknowledgments; Literature Cited; 4. Marker-Assisted Selection as a Component of Conventional Plant Breeding; Abbreviations; I. Introduction; II. Selection of Traits for MAS; III. Nature of QTL; IV. Choice of Markers for MAS; V. Marker-Trait Associations; VI. Theoretical Considerations for Successful MAS; VII. Different Breeding Schemes Involving MAS VIII. Simultaneous QTL Detection and MAS (AB-QTL and ""Mapping-As-You-Go"" Approaches)IX. Gene Pyramiding; X. MAS in Combination With

Phenotypic Selection; XI. Economics of MAS; XII. Improved Germplasm and Cultivars Using MAS; XIII. Limitations and Future Possibilities; XIV. Conclusions; Literature Cited; 5. Marker-Assisted Gene Pyramiding for Cultivar Development; Abbreviations; I. Introduction; II. General Principles; III. Process of Designing a Marker-Based Gene-Pyramiding Strategy; IV. Guidelines for Designing an Efficient Gene-Pyramiding Strategy; V. Main Factors Affects Gene Pyramiding VI. Successful Applications of Gene Pyramiding in Practice VII. Integrating Gene Discovery, Validation, and Pyramiding; VIII. Summary and Prospects; Literature Cited; 6. Legume Genomics and Breeding; I. Introduction; II. Constraints in Crop Production; III. Genomic Resources in Legumes; IV. Trait Mapping and Marker-Assisted Selection; V. Summary and Prospects; Acknowledgments; Literature Cited; 7. Breeding American Chestnuts for Blight Resistance; I. Introduction; II. Chestnut Genetics; III. Chestnut Blight; IV. Blight-Resistance Breeding V. Population Genetics of Hybrid Chestnut Reintroduction VI. Conclusion; Literature Cited; Subject Index; Cumulative Subject Index; Cumulative Contributor Index

Sommario/riassunto

Plant Breeding Reviews presents state-of-the-art reviews on plant genetics and the breeding of all types of crops by both traditional means and molecular methods. Many of the crops widely grown today stem from a very narrow genetic base; understanding and preserving crop genetic resources is vital to the security of food systems worldwide. The emphasis of the series is on methodology, a fundamental understanding of crop genetics, and applications to major crops.
