Record Nr. UNINA9910813958803321 Genetics, genomics and breeding of maize / / editors, Ramakrishna **Titolo** Wusirika, Department of Biological Sciences, Michigan Technological University, Houghton, MI, USA; Martin Bohn, Crop Science Department, University of Illinois, Urbana, IL USA; J Pubbl/distr/stampa Boca Raton:,: CRC Press,, [2015] ©2015 **ISBN** 0-429-07570-7 1-4822-2813-0 Descrizione fisica 1 online resource (307 p.) Collana Genetics, Genomics and Breeding of Crop Plants Disciplina 633.1/5233 633.15233 Soggetti Corn - Genetics Corn - Genome mapping Corn - Breeding Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references. Nota di bibliografia Nota di contenuto Front Cover: Preface to the Series: Dedication: Preface to the Volume: Contents; List of Contributors; Abbreviations; Chapter 1 - Basic Information; Chapter 2 - Breeding and Genetic Diversity; Chapter 3 -Genomic Distribution of Genetic Diversity in Elite Maize Germplasm: Chapter 4 - Genetic Inference on Quantitative Traits Through Linkage and Association Studies; Chapter 5 - Molecular Marker-Assisted Breeding for Tropical Maize Improvement: Chapter 6 - Comparative Genomics; Chapter 7 - Functional Genomics; Chapter 8 - Epigenomics Chapter 9 - Proteomic Research Progress in Maize Development, Stress Response and HeterosisChapter 10 - Artificial Chromosome Platforms in Maize; Chapter 11 - Databases; Chapter 12 - Non-Traditional Uses of Maize: Biofuels, Remediation and Pharmaceuticals; Chapter 13 -Future Maize Hybrid Development: Breeding with Assistance of Molecular and Genomics Technologies and Transgenics; Color Plate Section: Back Cover

Sommario/riassunto

<P>Sequencing of the maize genome has opened up new opportunities

in maize breeding, genetics and genomics research. This book highlights modern trends in development of hybrids, analysis of genetic diversity, molecular breeding, comparative and functional genomics, epigenomicsand proteomics in maize. The use of maize in biofuels, phytoremediation and pharmaceuticals is also highlighted. Current research trends, future research directions and challenges are discussed by a panel of experts from all over the world.