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Titolo	Sorghum Molecular Breeding [[electronic resource] /] / edited by R. Madhusudhana, P. Rajendrakumar, J.V. Patil
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ISBN	81-322-2422-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (231 p.)
Disciplina	570
Soggetti	Agriculture Plant genetics Plant breeding Transgenic organisms Plant Genetics and Genomics Plant Breeding/Biotechnology Transgenics
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 at the end of each chapters.
Nota di contenuto	Part 1: Sorghum: Introduction -- 1. Sorghum: Origin, classification, biology and improvement -- Part 2: Advances in DNA marker research -- 2. DNA markers in diversity analysis -- 3. Linkage mapping -- 4. Application of DNA markers for genetic improvement -- 5. Heterosis prediction using DNA markers -- Part 3: Advances in genomics research -- 6. Genomics and bioinformatics resources -- 7. Post-genome sequencing developments -- 8. Molecular marker development using bioinformatic tools -- Part 4: Advances in transgenic research -- 9. Advances in genetic transformation -- 10. Genetic engineering for novel traits.
Sommario/riassunto	This book provides an up-to-date overview of international research work on sorghum. Its comprehensive coverage of our current understanding of transgenic development in sorghum and the strategies that are being applied in molecular breeding make this book unique. Important areas such as genetic diversity, QTL mapping, heterosis prediction, genomic and bioinformatics resources, post-genome sequencing developments, molecular markers development

using bioinformatics tools, genetic transformation and transgenic research are also addressed. The availability of the genome sequence along with other recent developments in sequencing and genotyping technologies has resulted in considerable advances in the area of sorghum genomics. These in turn have led to the generation of a large number of DNA-based markers and resulted in the identification and fine mapping of QTL associated with grain yield, its component traits, biotic and abiotic stress tolerance as well as grain quality traits in sorghum. Though a large volume of information has accumulated over the years, especially following the sequencing of the sorghum genome, until now it was not available in a single reference resource. This book fills that gap by documenting advances in the genomics and transgenic research in sorghum and presenting critical reviews and future prospects. “Sorghum Molecular Breeding” is an essential guide for students, researchers and managers who are involved in the area of molecular breeding and transgenic research in sorghum and plant biologists in general.
