1. Record Nr. UNINA9910830632703321

Titolo	Rice biotechnology [[electronic resource]] : improving yield, stress tolerance and grain quality / / [editors, Jamie A. Goode and Derek Chadwick]
Pubbl/distr/stampa	New York, : Wiley, 2001
ISBN	1-282-34818-3 9786612348181 0-470-51577-5 0-470-51578-3
Descrizione fisica	1 online resource (274 p.)
Collana	Novartis Foundation symposium ; ; 236
Altri autori (Persone)	GoodeJamie ChadwickDerek
Disciplina	633.18233 660.6
Soggetti	Rice - Biotechnology Rice - Quality
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 index.
Nota di contenuto	RICE BIOTECHNOLOGY: IMPROVING YIELD, STRESS TOLERANCE AND GRAIN QUALITY; Contents; Participants; Opening address: The challenge to feed the World's poor; Chair's introduction; A framework for sequencing the rice genome; Rice genomics: current status of genome sequencing; General discussion I; Rice - the pivotal genome in cereal comparative genetics; Bioinforrnatics for rice resources; Regulation of gene expression bv J small molecules in rice; General discussion I1; Introduction of genes encoding C4 photosynthesis enzymes into rice plants: physiological consequences Increasing rice photosynthesis by manipulation of the acclimation and adaptation to lightIncreasing rice productivity and yield by manipulation of starch synthesis; Genetic analysis of plant disease resistance pathways; Regulation of systemic acquired resistance by NPRl and its partners; Improving plant drought, salt and freezing tolerance by gene transfer of a single stress-inducible transcription factor; Dissection of defence response pathways in rice; Breeding for

	nutritional characteristics in cereals Biosynthesis of B-carotene (provitamin A) in rice endosperm achieved by genetic engineeringDeveloping transgenic grains with improved oils, proteins and carbohydrates; Summing-up: cutting-edge science for rice improvement - breakthroughs and beneficiaries; Index of contributors; Subject index
Sommario/riassunto	Rice is the most important food crop for half the world's population. Over the last three decades, the improvement in human nutrition and health in Asia has largely been attributable to a relatively stable and affordable rice supply. The challenge to produce enough rice for the future, however, remains daunting, as the current rate of population growth outpaces that of increases in rice production. Science has a central role to play in raising rice productivity and this book highlights areas of plant science that are particularly relevant to solving the major constraints on rice production. Ex