

| | |
|-------------------------|--|
| 1. Record Nr. | UNINA9911019804803321 |
| Titolo | Rice biotechnology : improving yield, stress tolerance and grain quality // [editors, Jamie A. Goode and Derek Chadwick] |
| Pubbl/distr/stampa | New York, : Wiley, 2001 |
| ISBN | 9786612348181 9781282348189 1282348183 9780470515778 0470515775 9780470515785 0470515783 |
| 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; Bioinformatics for rice resources; Regulation of gene expression by 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 light Increasing rice productivity and yield by manipulation of starch synthesis; Genetic analysis of plant disease resistance pathways; Regulation of systemic acquired resistance by NPRI 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 engineering Developing 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
