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Nota di contenuto	Chapter 1. Transgenic tomatoes for abiotic stress tolerance and fruit traits: A review of progress and a preview of potential -- Chapter 2. Genetically modified brinjal (<i>Solanum melongena</i> L.) and Beyond -- Chapter 3. Biotechnology of red pepper -- Chapter 4. Non-host armor against insect: Characterization and application of <i>Capsicum annuum</i> protease inhibitors in developing insect tolerant plants -- Chapter 5. Transgenic banana: Current status, opportunities and challenges -- Chapter 6. Transgenic papaya - Melaine Randle and Paula Tennant -- Chapter 7. Genetically modified citrus: Current status, prospects and future challenges -- Chapter 8. Genetically modified cassava; the last

hope that could help to feed the world: Recent advances -- Chapter 9. Transgenics for targeted trait manipulation: The current status of genetically engineered mulberry crop -- Chapter 10. Genetically engineered Jatropha: A new bioenergy crop -- Chapter 11. GM crops for plant virus resistance: A review.

Sommario/riassunto

Genetic transformation is a key technology, in which genes are transferred from one organism to another in order to improve agronomic traits and ultimately help humans. However, there is concern in some quarters that genetically modified crops may disturb the ecosystem. A number of non-governmental organizations continue to protest against GM crops and foods, despite the fact that many organisms are genetically modified naturally in the course of evolution. In this context, there is a need to educate the public about the importance of GM crops in terms of food and nutritional security. This book provides an overview of various crop plants where genetic transformation has been successfully implemented to improve their agronomically useful traits. It includes information on the gene(s) transferred, the method of gene transfer and the beneficial effects of these gene transfers and the agronomic improvements compared to the wild plants. Further, it discusses the commercial prospects of these GM crops as well as the associated challenges. Given its scope, this book is a valuable resource for agricultural and horticultural scientists/experts wanting to explain to the public, politicians and non-governmental organizations the details of GM crops and how they can improve crops and the lives of farmers. It also appeals to researchers and postgraduate students. This volume focuses on the transgenics of mungbean, cowpea, chickpea, cotton, mulberry, Jatropha, finger millet, papaya, citrus plants and cassava. It also discusses CRISPR edited lines.
