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Nota di contenuto	The issues of plant science and food security. Introduction / David Baulcombe ; Reaping the benefits of plant science for food security / David Baulcombe ; Global population growth, food security and food and farming for the future / Jim M. Dunwell ; New genetic crops in a global context / Gordon Conway and Katy Wilson ; The economic and environmental impact of first-generation biotech crops / Graham Brookes ; Germplasm diversity and genetics to drive plant breeding for Africa / Wayne Powell and Tina Barsby ; Using molecular breeding to improve orphan crops for emerging economies / Ian Graham -- New genetic crops across the emerging world. Introduction / Christopher J. Leaver ; Status of crop biotechnology and biosafety in Africa / Diran

Makinde ; Transforming agriculture in Argentina : the role of genetically modified (GM) crops / Eduardo J. Trigo and Eugenio J. Cap ; China : earlier experiences and future prospects / Lu Bao-Rong ; Genetically engineered crops would ensure food security in India / Chavali Kameswara Rao ; Plant genetic improvement and sustainable agriculture / Pamela Ronald ; Nutritional enhancement by biofortification of staple crops / Adrian Dubock ; Transforming the cowpea, an African orphan staple crop grown predominantly by women / Larry Murdock, Idah Sithole-Niang and T.J.V. Higgins ; Transgenic marine algae for aquaculture : a coupled solution for protein sufficiency / Jonathan Gressel -- Lessons learned about implementing new genetics crops in policy. Introduction / Brian Heap ; Enabling factors for an innovation-ready agricultural landscape in African countries / Samuel Burckhardt [and others] ; Regulatory systems and agricultural biotechnology / Mark F. Cantley and Drew L. Kershen ; Biotechnology research for innovation and sustainability in agriculture in the European Union / Alfredo Aguilar [and others] ; Europe, GM crops and food : understanding the past, looking to the future / Martin Porter ; US international engagement in agricultural research and trade / Jack A. Bobo and Roger Beachy -- Social, legal, ethical and political issues. Introduction / David J. Bennett ; Have GM crops and food a future in Europe? / George Gaskell, Sally Stares and Claude Fischler ; Dealing with challenges and societal expectations : the industry's response / Nathalie Moll and Carel du Marchie Sarvaas ; Media and GM : a journalist's challenge / Tim Radford ; The environmental movement's earlier and current viewpoints and positions / Piet Schenkelaars ; Social and ethical issues raised by NGOs and how they can be understood / Richard C. Jennings ; Advancing the cause in emerging economies / Klaus Ammann.

Sommario/riassunto

World population is forecast to grow from 7 to 9 billion by 2050, 1 in 6 is already hungry and food production must increase by 70-100% if it is to feed this growing population. No single solution will solve this problem but recent developments in the genetic technologies of plant breeding can help to increase agricultural efficiencies and save people from hunger in a sustainable manner, particularly in African nations where the need is greatest. These advances can rapidly incorporate new traits and tailor existing crops to meet new requirements and also greatly reduce the time and costs taken to improve local crop varieties. This book provides a collected, reliable, succinct review which deals expressly with the successful implementation of the new plant genetic sciences in emerging economies in the context of the interrelated key regulatory, social, ethical, political and trade matters.
