

1. Record Nr.	UNINA9910298330303321
Titolo	Convergence of Food Security, Energy Security and Sustainable Agriculture // edited by David D. Songstad, Jerry L. Hatfield, Dwight T. Tomes
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2014
ISBN	3-642-55262-5
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (385 p.)
Collana	Biotechnology in Agriculture and Forestry, , 2512-3696 ; ; 67
Disciplina	338.1 570 630 631.52 641.3 660.6 664
Soggetti	Agriculture Plant biotechnology Agriculture—Economic aspects Food science Plant Biotechnology Agricultural Economics Food Science
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	Creative and Innovative Research – Our Only Hope for Achieving Sustainable Food and Energy Security.- Moving Toward Energy Security and Sustainability in 2050 by Reconfiguring Biofuel Production -- Sustainability Standards -- Soil Degradation, Land Use and Sustainability -- Impact of Technology and Policy on Sustainable Agricultural Water Use and Food Security -- Turning the GM Battleship: The Tide of Popular Opinion and the Future of Genetically Modified Foods -- Sustainable Production of Omega-3 Fatty Acids -- Achieving

Sustainable Agriculture: Overview of Current and Future Agronomic Best Practices -- Sustainable Agriculture and Soybean Breeding: Contribution of Soybean Yield Increase to Sustainable Agriculture -- Impact of Herbicide Tolerant Crops on Soil Health and Sustainable Agriculture Crop Production -- The Role of Biotechnology in Sustainable Agriculture of the 21st Century: The Commercial Introduction of Bollgard II in Burkina Faso -- The Borlaug Institute and Its Contributions to World Food and Economic Security -- Water Efficient Maize for Africa (WEMA): An Example of a Public Private Partnership -- The Importance of Herbicides for Natural Resource Conservation in the U.S. -- The 4R-BMP Concept: Enhanced Nutrient Management for Agricultural Sustainability and Food and Energy Security.

Sommario/riassunto

This volume examines the interrelated fields of food security, energy security and sustainable agriculture as the key to a stable global agricultural platform and is arranged in six parts. The first part is focused on policy considerations relating to food and energy security and sustainable agriculture. The authors from this part include Former Under Secretary of Agriculture Gale Buchanan, Former Under Secretary of Energy Raymond Orbach (Chapter 1), Stephen Hughes, Bryan Moser and William Gibbons (Chapter 2) and Thomas Redick (Chapter 3). Part II addresses soil and water, which are two of the key components in secure and sustainable food production. Authors from this part are Jerry Hatfield (Chapter 4) and Mahbub Alam, Sharon Megdal et al. (Chapter 5). The third part covers sustainable and secure food production specifically addressing genetically modified traits in Chapter 6 (James McWilliams) and omega-3 fatty acids in Chapter 7 (Jay Whelan et al.). Agronomic implications relative to food security and sustainable agriculture are described in Part IV. Authors include Ravi Sripada, Pradip Das et al. (Chapter 8), Duska Stojšin, Kevin Matson and Richard Leitz (Chapter 9) and S.H. Lee, David Clay and Sharon Clay (Chapter 10). International sustainable agriculture and food security is addressed in Part V with authors Jeff Vitale and John Greenplate (Chapter 11), Julie Borlaug et al. (Chapter 12) and Sylvester Oikeh et al. (Chapter 13). The final part covers the use of chemicals in sustainable agriculture and food/energy security with Leonard Gianessi and Ashley Williams communicating the role of herbicides and Harold Reetz emphasizing the importance of fertilizers both in maximizing crop yields to maintain a sustainable secure source for food production.
