Record Nr. UNINA9910791484903321 The impact of genetically engineered crops on farm sustainability in the **Titolo** United States [[electronic resource] /] / Committee on the Impact of Biotechnology on Farm-Level Economics and Sustainability, Board on Agriculture and Natural Resources, Division on Earth and Life Studies, National Research Council of the National Academies Washington, D.C., : National Academies Press, c2010 Pubbl/distr/stampa **ISBN** 0-309-15590-8 1-282-78725-X 9786612787256 0-309-14709-3 Descrizione fisica 1 online resource (270 p.) Disciplina 631.52330973 Soggetti Crops - Genetic engineering - United States Agricultural biotechnology - United States Plant breeding - United States Agriculture - Research - United States 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. ""Front Matter""; ""Preface""; ""Acknowledgments""; ""Contents""; ""List Nota di contenuto of Tables, Figures, and Boxes""; ""Abbreviations and Acronyms""; ""Summary""; ""1 Introduction""; ""2 Environmental Impacts of Genetically Engineered Crops at the Farm Level", ""3 Farm-Level Economic Impacts""; ""4 Farm-System Dynamics and Social Impacts of Genetic Engineering": ""5 Key Findings, Remaining Challenges, and Future Opportunities"": ""Appendix A: Herbicide Selection"": ""Appendix B: Tillage Systems""; ""Appendix C: Biographical Sketches of Committee Members"" Sommario/riassunto "Since genetically engineered (GE) crops were introduced in 1996, their use in the United States has grown rapidly, accounting for 80-90 percent of soybean, corn, and cotton acreage in 2009. To date, crops

with traits that provide resistance to some herbicides and to specific insect pests have benefited adopting farmers by reducing crop losses

to insect damage, by increasing flexibility in time management, and by facilitating the use of more environmentally friendly pesticides and tillage practices. However, excessive reliance on a single technology combined with a lack of diverse farming practices could undermine the economic and environmental gains from these GE crops. Other challenges could hinder the application of the technology to a broader spectrum of crops and uses. Several reports from the National Research Council have addressed the effects of GE crops on the environment and on human health. However, The Impact of Genetically Engineered Crops on Farm Sustainability in the United States is the first comprehensive assessment of the environmental, economic, and social impacts of the GE-crop revolution on U.S. farms. It addresses how GE crops have affected U.S. farmers, both adopters and nonadopters of the technology, their incomes, agronomic practices, production decisions, environmental resources, and personal well-being. The book offers several new findings and four recommendations that could be useful to farmers, industry, science organizations, policy makers, and others in government agencies."--Publisher's description.