Record Nr. UNINA9910767531503321 Sustainable Agriculture Reviews [[electronic resource]]: Volume 17 // **Titolo** edited by Eric Lichtfouse Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-16742-1 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (366 p.) Collana Sustainable Agriculture Reviews, , 2210-4410 ; ; 17 Disciplina 570 Soggetti Agriculture Sustainable development Soil science Soil conservation Sustainable Development Soil Science & Conservation 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 Robust cropping strategies against evolving pests under climate change -- Phosphorus dynamics and management in forage systems with cowcalf operation -- Conservation tillage for soil management and crop production -- Salinity and crop productivity -- Vegetable breeding industry and property rights -- Local plants for rural food security --Phytoremediation and biofuels -- Growth and defense metabolism of plants exposed to ultraviolet-B radiation -- Soil quality and plantmicrobe interactions in the rhizosphere -- Vetiver production for small farmers in India. Sommario/riassunto Sustainable agriculture is a rapidly growing field aiming at producing food and energy in a sustainable way for humans and their children. Sustainable agriculture is a discipline that addresses current issues such as climate change, increasing food and fuel prices, poor-nation starvation, rich-nation obesity, water pollution, soil erosion, fertility loss, pest control and biodiversity depletion. Novel, environmentallyfriendly solutions are proposed based on integrated knowledge from

sciences as diverse as agronomy, soil science, molecular biology,

chemistry, toxicology, ecology, economy and social sciences. Indeed, sustainable agriculture decipher mechanisms of processes that occur from the molecular level to the farming system to the global level at time scales ranging from seconds to centuries. For that, scientists use the system approach that involves studying components and interactions of a whole system to address scientific, economic and social issues. In that respect, sustainable agriculture is not a classical, narrow science. Instead of solving problems using the classical painkiller approach that treats only negative impacts, sustainable agriculture treats problem sources. Because most actual society issues are now intertwined, global and fast-developing, sustainable agriculture will bring solutions to build a safer world.