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Sommario/riassunto

In a worldwide context of ever-growing competition for water and land, climate change, droughts and man-made water scarcity, and lessparticipatory water governance, agriculture faces the great challenge of producing enough food for a continually increasing population. In this line, this book provides a broad overview of innovation issues in the complex water-agriculture-food nexus, thus also relative to their interconnections and dependences. Issues refer to different spatial scales, from the field or the farm to the irrigation system or the river basin. Multidisciplinary approaches are used when analyzing the relationships between water, agriculture, and food security. The covered issues are quite diverse and include: innovation in crop evapotranspiration, crop coefficients and modeling; updates in research relative to crop water use and saving; irrigation scheduling and systems design; simulation models to support water and agricultural decisions; issues to cope with water scarcity and climate change; advances in water resource quality and sustainable uses; new tools for mapping and use of remote sensing information; and fostering a participative and inclusive governance of water for food security and population welfare. This book brings together a variety of contributions by leading international experts, professionals, and scholars in those diverse

fields. It represents a major synthesis and state-of-the-art on various subjects, thus providing a valuable and updated resource for all researchers, professionals, policymakers, and post-graduate students interested in the complex world of the water-agriculture-food nexus.