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Titolo	Water-Conservation Traits to Increase Crop Yields in Water-deficit Environments : Case Studies // edited by Thomas R. Sinclair
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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Chapter1. Introduction -- Chapter2. Early Partial Stomata Closure with Soil Drying -- Chapter3. Limited-Transpiration Rate Under Elevated Atmospheric Vapor Pressure Deficit -- Chapter4. Soybean -- Chapter5. Peanut -- Chapter6. Chickpea -- Chapter7. Lentil -- Chapter8. Maize -- Chapter9. Sorghum -- Chapter10. Pearl Millet -- Chapter11. Wheat.
Sommario/riassunto	This volume explores specific approaches that have shown to result in crop yield increases. Research on the physiological understanding of these methods has led to the development of practical applications of

plant breeding approaches to genetically improve crops to achieve higher yields. Authoritative entries from crop scientists shed new light on two water-conservation traits: one that is based on an initiation of the decrease in transpiration earlier in the soil drying cycle, and the second that is based on a sensitivity of transpiration rate under high atmospheric vapor pressure deficit that results in partial stomatal closure. Both these approaches involve partial stomatal closure under well-defined situations to decrease the rate of soil water loss. Readers will be able to analyze the circumstances under which a benefit is achieved as a result of the water-limitation trait; and key discussion points in the case studies presented will help answer questions such as what species, which environments, how often will yield be benefited for various crop species? Contributions also review the genetic variation for these two traits within each crop species and the physiological basis for the expression of these traits.
