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Sommario/riassunto	This book presents up-to-date information on various vector-less/direct (physical, chemical) and vector-mediated/indirect (Agrobacterium-mediated) plant transformation techniques. It summarizes various strategies that facilitate a gene from lower

organism to be expressed in higher plants and also in silico designing of synthetic gene for higher expression. It also highlights the importance of strong promoters to drive the expression of transgene (s). This book encompasses the advantages and drawbacks of cisgenesis and transgenesis, their implications towards sustainable crop improvement, and their future prospects. The importance, limitations, challenges, recent developments, and future prospects of molecular pharming is also discussed. The book concludes with a chapter that summarizes the major contribution of GM-crops towards global food security and economy, advances in genome editing for crop improvement, challenges and risk associated with the release of GM-crops, and the future of GM technology. This book is meant for students and researchers in the field of life sciences, food science, and agriculture. .