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Titolo	CRISPR crops : the future of food security // Aftab Ahmad, Sultan Habibullah Khan, Zulqurnain Khan, editors
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ISBN	981-15-7142-2
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Descrizione fisica	1 online resource (XII, 306 pages) : illustrations ;
Disciplina	631.5233
Soggetti	Crops - Genetic engineering
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Nota di contenuto	Chapter 1. CRISPR/Cas System: An Introduction -- Chapter 2. CRISPR/Cas Based Techniques in Plants -- Chapter 3. Delivery Methods, Resources and Design Tools in CRISPR/Cas -- Chapter 4. CRISPR/Cas Based Insect Resistance in Crops -- Chapter 5. Disease Resistance in Crops Through CRISPR/Cas -- Chapter 6. CRISPR/Cas mediated Abiotic Stress Tolerance in Crops -- Chapter 7. Key Applications of CRISPR/Cas for Yield and Nutritional Improvement in Crop Plants -- Chapter 8. Applications of CRISPR/Cas beyond simple traits in Crops -- Chapter 9. Regulatory, Ethical and Social Aspects of CRISPR Crops -- Chapter 10. Challenges and Future Perspective of CRISPR/Cas Technology for Crop Improvement.
Sommario/riassunto	This book compiles the latest applications of the cutting-edge gene editing tool CRISPR/Cas in the area of crop improvement. It begins with an introduction to the technique and its application in crop plants. Next, it gives an updated overview of available delivery methods, design tools and resources in CRISPR/Cas. The book subsequently reviews the applications of CRISPR/Cas in connection with e.g. insect stress, disease stress, abiotic stress, nutritional and yield improvement in crop plants, etc. It also discusses the various regulatory, ethical and social aspects of the technique that must be kept in mind when designing experiments. In closing, the book summarizes the status quo and outlines future prospects for the tool in crop improvement and food security. Given its scope, the book will especially benefit students

and researchers in food science, biotechnology, agriculture and the plant sciences.

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