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Autore	Kumar Sarwan
Titolo	Plant Resistance to Insects in Major Field Crops [[electronic resource] /] / edited by Sarwan Kumar, Michael Furlong
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Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (338 pages)
Altri autori (Persone)	FurlongMichael
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Soggetti	Plant diseases Agriculture Agricultural genome mapping Plant Pathology Agricultural Genetics
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Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Unraveling the Co-evolutionary Arms Race: Insights into the Dynamic Interplay of Plants, Insects, and Associated Organisms -- Chapter 3. Host plant resistance to insects in cotton -- Chapter 4. Current status of host plant resistance to insects in rice and future perspectives -- Chapter 5. Host plant resistance to insect pests in wheat -- Chapter 6. Host Plant Resistance to Insect Pests in Maize -- Chapter 7. Host plant resistance to insects in Pulse Crops -- Chapter 8. Plant Resistance to Insects in Oilseed Crops -- Chapter 9. Host plant resistance to insects in vegetable crops -- Chapter 10. Role of Induced Resistance in Insect-Pest Management -- Chapter 11. Different Generations of Genetically Modified Crops for Insect Resistance -- Chapter 12. High throughput Phenotyping and its Importance in Host Plant Resistance.
Sommario/riassunto	This edited book is a comprehensive collection of information on host plant resistance to insects in major field crops. The focus of the book is to make the audience aware of the latest developments in host plant resistance in major field crops and how it can be used for sustainable pest management solutions. It deals with the insect-plant interactions, plant defence responses to herbivore attacks, plant phenotyping, and

breeding for insect resistance. Insects are an important group of biotic stresses that limit crop productivity in many regions of the world. At present, they are largely managed by synthetic insecticides which have their own adverse effects including insecticide resistance, pest resurgence, environmental pollution, and pesticide residues, to name a few. Thus, there is an urgent need to develop alternate pest management strategies that can provide a sustainable solution to pest problems. Host plant resistance is considered an important pest management strategy as it offers an effective, economical, and environmental friendly solution to pest problems. This book is of interest to postgraduate students, crop entomologists, and breeders working on host plant resistance to insect pests. It is also valuable for teachers, researchers, and climate change scientists. The book serves as an additional reading material for undergraduate and graduate students of agriculture, ecology, and environmental sciences. Agricultural experts from around the world, as well as policymakers, will also find this book helpful.

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