Record Nr.	UNINA9910422650203321
Titolo	Accelerated Plant Breeding, Volume 2 : Vegetable Crops / / edited by Satbir Singh Gosal, Shabir Hussain Wani
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-47298-1
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XV, 455 p. 52 illus., 47 illus. in color.)
Disciplina	631.52 635.043
Soggetti	Plant breeding Plant genetics Agriculture Nutrition Plant Breeding/Biotechnology Plant Genetics and Genomics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface Major Paradigm Shifts in Potato Breeding A Rapid Disease Resistance Breeding in Tomato (Solanum lycopersicum L.) Improvement of Onion through Accelerated Approaches Rapid Methods for Onion Breeding Accelerated Improvement of Cole Vegetable Crops Marker Assisted Selection in Pea Breeding Efficient Methods for the Improvement of Temperate Root Vegetables Rapid Methods of Improvement in Brinjal Conventional and Contemporary Approaches to Enhance Efficiency in Breeding Chilli/Hot Pepper Accelerated Breeding in Cucumber Using Genomic Approaches Advances in Improvement of Pumpkin and Squashes Accelerated Breeding in Okra New Initiatives in Quick Bitter Guard Breeding Principles and Techniques for Rapid Improvement of Muskmelon for Yield, Fruit Quality and Resistance to Biotic Stresses Accelerated Breeding of Cowpea [Vigna unguiculata (L.) Walp.] for Improved Yield and Pest Resistance Recent Trends in Sweet Pepper Breeding Index.

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Sommario/riassunto

Plant improvement has shifted its focus from yield, quality and disease resistance to factors that will enhance commercial export, such as early maturity, shelf life and better processing quality. Conventional plant breeding methods aiming at the improvement of a self-pollinating crop, such as wheat, usually take 10-12 years to develop and release of the new variety. During the past 10 years, significant advances have been made and accelerated methods have been developed for precision breeding and early release of crop varieties. The proposed two-volume work summarizes concepts dealing with germplasm enhancement and development of improved varieties based on innovative methodologies that include doubled haploidy, marker assisted selection, marker assisted background selection, genetic mapping, genomic selection, high-throughput genotyping, high-throughput phenotyping, mutation breeding, reverse breeding, transgenic breeding, shuttle breeding, speed breeding, low cost high-throughput field phenotyping, etc. It will be an important reference with special focus on accelerated development of improved crop varieties.