

1. Record Nr.	UNINA9910139687603321
Titolo	Breeding for fruit quality // editors: Matthew A. Jenks, Penelope J. Bebeli
Pubbl/distr/stampa	Chichester, West Sussex ; ; Ames, Iowa, : Wiley-Blackwell, 2011
ISBN	9780470959343 0470959347 9780470959350 0470959355 9780470959336 0470959339
Descrizione fisica	1 online resource (1051 p.)
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Disciplina	634/.042
Soggetti	Fruit - Breeding Fruit - Genetic engineering Fruit - Quality
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Contents; Title Page; Copyright Page; Contributors; Preface; Section I Introduction; Chapter 1: The Biological Basis of Fruit Quality; Introduction; Fruit Quality; Fruit Constituents and Their Contribution to the Human Diet; Fruit Metabolism during Fruit Development, Maturation, and Ripening; Cell Wall Metabolism and Fruit Texture; The Metabolism of Volatiles that Contribute to Fruit Aroma; Pigment Metabolism and Fruit Color Changes; Respiration in Relation to Fruit Metabolism and Ripening; The Role of Ethylene in Fruit Ripening and Quality; Conclusion and Future Perspectives9 ReferencesSection II Strategies for Improving Specific Fruit Quality Traits; Chapter 2: Fruit Organoleptic Properties and Potential for Their Genetic Improvement; Introduction; Fruit Organoleptic Properties; Organoleptic Properties during Domestication and Breeding; Flavor Diversity; Breeding for Flavor; References; Chapter 3: Breeding for Fruit Nutritional and Nutraceutical Quality; Introduction; The Effect of

Environment and Cultivation Factors on Fruit Nutritional and Nutraceutical Quality; The Effect of Genotype on Fruit Nutritional and Nutraceutical Quality
Breeding for Fruit Nutritional and Nutraceutical Quality
Breeding Selection Strategies and Parameters for Nutritional and Nutraceutical Quality; Means to Avoiding Potential Allergens; Combining Breeding and Biotechnology for Improving Fruit Quality
Fruit Nutrition and Beneficial Phytochemicals; Conclusion; References;
Chapter 4: Fruit Shelf Life and Potential for Its Genetic Improvement; Introduction; Cell Wall Composition and Structure; Cell Wall Disassembly Is the Major Determinant Factor of Fruit Shelf Life; Cell Wall Modifying Genes and Activities; Role of Turgor in Fruit Softening
Conclusion
References;
Chapter 5: Breeding of Hypoallergenic Fruits; Introduction to Fruit Allergy; Fruit Allergens; Expression of Putative Allergen Genes; Selection of Hypoallergenic Variety; Genetic Modification; References;
Chapter 6: Impact of Breeding and Yield on Fruit, Vegetable, and Grain Nutrient Content; Introduction; Increasing Yield of Fruits and Vegetables; Evidence for Declining Nutrient Concentrations; The Effects of Hybridization on Yields and Nutrient Concentrations; Discussion; References;
Chapter 7: Transgenic Approaches to Improve Fruit Quality; Introduction
Improvement of Fruit Taste
Modification of Phytonutrients Carotenoids and Flavonoids; Inhibition of Enzymatic Browning; Genetic Engineering for Seedlessness; Improvement of Firmness and Texture; Modulation of Ethylene Biosynthesis and Ripening; Modulating Interaction between Fruits and Microorganisms; Conclusion; References;
Section III
Improving the Quality of Specific Fruits;
Chapter 8: Breeding for Fruit Quality in Apple; Introduction; Early Improvement and Genetic Study of the Apple; Challenge to Improve Fruit Quality; Appearance of Fruit; Eating Quality; Keeping Quality
Issues with Breeding for Fruit Quality

Sommario/riassunto

The global demand for high quality fruits that are rich in nutrients and that can endure the demands of worldwide supply chains is growing rapidly. Fruits are an important component of the human diet, providing vitamins, minerals, antioxidants, and fiber. All of these qualities contribute to the nutritional needs and health maintenance of humans. Breeding for Fruit Quality reviews the application of modern plant breeding methods to the development of improved varieties of fruits. Breeding for Fruit Quality opens with chapters that look at fruit biology and breeding strategies b
