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Titolo	Pigments in Fruits and Vegetables : Genomics and Dietetics / / edited by Chunxian Chen
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2015
ISBN	1-4939-2356-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (280 p.)
Disciplina	540 570 572 572572 581.35
Soggetti	Plant genetics Botanical chemistry Nutrition Chemistry Plant Genetics and Genomics Plant Biochemistry Chemistry/Food Science, general
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	Overview of Plant Pigments -- Carotenoids Biosynthesis Genomics -- Carotenoids in Human Nutrition -- Differential Transcription Factor Networks Orchestrate Flavonoid Biosynthesis -- Flavonoids Dietetics: Mechanisms and Emerging Roles of Plant Nutraceuticals -- The Betalain Secondary Metabolic Network -- Indicaxanthin Dietetics: Past, Present and Future -- Pigments in Citrus -- Pigments in Grape -- Pigments in Strawberry -- Carotenoids in Carrot -- Carotenoids in Green Vegetables and Health Aspects -- Anthocyanins in Staple Crops.
Sommario/riassunto	This comprehensive treatise provides insight into pigment biosynthesis and dietetics. The text includes current reviews on the genomics of carotenoid, flavonoid, and betalain biosynthesis in plants and the dietetics of these pigments in humans. Pigments biosynthesized in

plants are a source of attractive colors in nature and essential nutrients in our daily fruit, vegetable, and grain diet. Deciphered from general perspectives and specific fruits and vegetables, genomics focuses on enzymatic genes and regulatory molecular mechanisms in the biosynthesis pathways to produce these pigments in plants. Dietetics focuses on the nutritional and medical benefits to human health from these pigments as nutrients, nutraceuticals, and disease prevention agents when they are ingested from pigment-abundant plant food and metabolized in human body. This work contributes to an expanding awareness of the dietetic benefits to the daily consumption of pigment-rich fruit, vegetable, and grain food.