Record Nr. UNINA9910298284903321 Pigments in Fruits and Vegetables: Genomics and Dietetics / / edited **Titolo** 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 Plant biochemistry **Nutrition** Chemistry Plant Genetics and Genomics Plant Biochemistry **Nutrition** Chemistry/Food Science, general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali 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.

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

Sommario/riassunto

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.