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Nota di contenuto	Handbook of Fruits and Fruit Processing; Contents; Contributors; Preface; Part 1 Biology, Biochemistry, Nutrition, and Microbiology; 1 Physiology and Classification of Fruits; INTRODUCTION; DEVELOPMENT OF A FRUIT; Pollination and Fertilization; Fruit Set; Parthenocarpy and Stenospermocarpy; Fruit Growth; Maturation, Ripening, and Senescence; FRUIT CLASSIFICATION; Fruits Classified by Their Origin; Fruits Classified by Respiration Rates and Ethylene Responses; Botanical Classification of Fruits; Culinary Classification of Fruits; REFERENCES; 2 Biochemistry of Fruits and Fruit Products INTRODUCTIONREGULATION OF FRUIT RIPENING: THE ROLE OF ETHYLENE; CARBOHYDRATE METABOLISM; ORGANIC ACIDS; LIPID METABOLISM; Lipid Biosynthesis; Wax Synthesis and Deposition; Lipid Metabolism in Fruit During Ripening and Senescence: Postharvest Changes; PIGMENTS IN FRUITS; Chlorophylls; Anthocyanins; Carotenoids; VOLATILE AROMA COMPOUNDS; OTHER COMPONENTS;

Vitamins; Fiber; Minerals; REFERENCES; 3 Flavor of Fruits and Fruit Products and Their Sensory Qualities; INTRODUCTION; HISTORY AND BACKGROUND OF FLAVOR; ANALYTICAL METHODOLOGY OF FRUIT FLAVORS; Combining Analytical and Sensory Measurements Authentication of Natural Fruit Flavors Flavor and Chemical Composition of Fruits; BIOSYNTHESIS OF FRUIT FLAVORS; GENETIC IMPROVEMENT AND VARIATION IN FLAVOR QUALITY; FACTORS AFFECTING FLAVOR AND SENSORY QUALITY OF FRUITS; Preharvest Conditions; Postharvest Conditions; Flavor and Packaging Interactions; SENSORY EVALUATION OF FRUITS; ENHANCEMENT OF SENSORY QUALITY OF FRUITS; FLAVOR OF FRUIT PRODUCTS; FRUIT FLAVOR IN PROCESSED FOOD PRODUCTS; FUTURE RESEARCH NEEDS; REFERENCES; 4 Microbiology of Fresh and Processed Fruits; INTRODUCTION; MICROBIOLOGY OF FRESH AND MINIMALLY PROCESSED FRUITS Normal Microflora of Whole Fresh Fruits Opportunistic and Spoilage Microflora of Whole Fresh Fruits; Microflora of Minimally Processed Fruits; MICROFLORA OF PROCESSED FRUIT PRODUCTS; FACTORS AFFECTING MICROBIAL GROWTH; Intrinsic Factors; Extrinsic Factors; Implicit Factors; FACTORS AFFECTING MICROBIAL QUALITY AND FRUIT SPOILAGE; Preharvest Factors; Postharvest Handling and Processing; FRUIT SPOILAGE; True Pathogens; Opportunistic Pathogens; Modes of Fruit Spoilage; METHODS TO EVALUATE MICROBIAL QUALITY; Conventional Techniques; New Methods for Rapid Analysis MAINTAINING MICROBIAL QUALITY OF FRUITSPostharvest and Storage Considerations; FRUIT SAFETY; Associated Pathogens and Sources of Contamination; Microbiology Safety Issues and HACCP; HEALTH IMPLICATIONS; FUTURE PERSPECTIVES; REFERENCES; 5 Nutritional Quality of Fruits; INTRODUCTION; MACRONUTRIENTS; Water; Carbohydrates; Fiber; Fats; Proteins; MICRONUTRIENTS; Vitamins; Minerals; BIOACTIVE COMPOUNDS; Carotenoids; Flavonoids; Phytosterols; REFERENCES; Part 2 Postharvest Handling and Preservation Technologies; 6 Postharvest Storage Systems: Biology, Physical Factors, Storage, and Transport INTRODUCTION

Sommario/riassunto

"The processing of fruits continues to undergo rapid change. In the Handbook of Fruits and Fruit Processing, Second Edition, the editorial team has assembled over forty respected academicians and industry professionals from across the globe to create an indispensable resource on the scientific principles and technological methods for processing fruits of all types. Fruits are diverse and complex in production, storage, transport, packaging, processing and application. In a developed economy such as the United States approximately 60-70% fruits and vegetables are processed into various value added products and account for nearly a third of cash crop receipts and a fifth of agricultural exports. In emerging economies and markets there is an increasing emphasis on value added agriculture and realization about the nutritional aspects of fruits and vegetables. The second edition of the handbook on fruits and fruit processing further builds on the contents and quality of the first edition by incorporating contemporary and new scientific and technological developments that have occurred since its publication. The second edition improves, includes and expands the coverage of the subject matters to provide relevant developments in: horticultural biochemistry, microbiology (including HACCP, legal and safe microbial limits of fruit and fruit products entering world trade), sensory and flavor characteristics, nutrition, naturally present bioactive phenolics, postharvest physiology, storage, transportation and packaging, processing and preservation technologies (freezing, canning, aseptic processing, non-thermal

technology, drying, etc.), and details on commodity processing including frozen fruits, canned fruit, jelly, jam and preserves, fruit juices, dried fruits and wines"--
