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Nota di contenuto	Fundamentals of Tree and Vine Physiology -- Mechanical Management of Modern Planar Fruit Tree Canopies -- Orchard Water Management -- Vineyard Water Management -- Pests and diseases management -- Advanced Technologies for Crop-load Management -- Mechanical Harvesting -- Autonomous Platforms -- Management Information Systems and Emerging Technologies -- Economic and Societal Aspects.
Sommario/riassunto	Modern tree fruit orchards and vineyards constitute complex production systems that are exposed to highly dynamic and stochastic natural, financial and societal forces, and face demands for increased production using fewer resources, with reduced environmental impact. Successful operation of orchards and vineyards under these conditions is practically impossible without careful and extensive use of state-of-the-art automation technologies and careful planning of future operations (e.g., training systems when replanting) that can be enabled

by knowledge of emerging technologies and future trends. Also, improvement of existing automation technologies and development of novel future systems cannot be accomplished without a working understanding of the tree and vine biological production systems, their management needs, and the capabilities and limitations of existing automation systems. The book aims to provide the necessary knowledge to achieve the above goals in a way that can engage readers without engineering or horticultural backgrounds. .