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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1. Applications of quantitative proteomics in plant research -- 2. Seed proteomics: an overview -- 3. Fruit development and ripening: proteomic as an approach to study Olea europaea and other non-model organisms -- 4. Proteomics in detection of contaminations and adulterations in agricultural foodstuffs -- 5. Holistic sequencing: Moving forward from plant microbial proteomics to metaproteomics -- 6. Proteomics in Energy Crops -- 7. The Proteome of Orchids -- 8. Proteomic Tools for the Investigation of Nodule Organogenesis -- 9. Proteomic Applications for Farm Animal Management -- 10. Applications of proteomics in Aquaculture -- 11. Wool proteomics -- 12. Proteomic research on honeybee.
Sommario/riassunto	This book will cover several topics to elaborate how proteomics may enhance agricultural productivity. These include crop and food proteomics, farm animal proteomics, aquaculture, microorganisms and insect proteomics. It will also cover several technical advances, which may address the current need for comprehensive proteome analysis. An emerging field of the proteomics aim is to integrate knowledge from

basic sciences and to translate it into agricultural applications to solve issues related to economic values of farm animals, crops, food security, health, and energy sustainability. Given the wealth of information generated and to some extent applied in agriculture, there is the need for more efficient and broader channels to freely disseminate the information to the scientific community. Agricultural Proteomics can play a role in addressing the growing demand for food. The application of proteome science in agriculture has allowed researchers to identify a broad spectrum of proteins in living systems and associates them to many major traits. It may give clues not only about nutritional value but also about yield production and food quality and how environments affect these factors. In recent years, technical improvements in the mass spectrometry, bioinformatics, protein extraction and separation have made the high-throughput analysis of agricultural products feasible and the reproducibility of the technology has reduced errors in assaying protein levels. Meanwhile, the application of mass spectrometry-based quantification methods have become mainstream in recent year. The rapid advances of genome sequencing tools also paved the way to sequence the full genome of many crops, animals, insects, and microorganisms. This provided proteomics scientist with a huge number of reference genome and genes for genome wide proteome analysis. .