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Nota di contenuto	Technologies -- 1. New developments in identification and quantification of airborne inoculum -- 2. siRNA deep sequencing and assembly: piecing together viral infections -- 3. Use of airborne inoculum detection for disease management decisions -- 4. Proximal sensing of plant diseases -- Case studies and special applications -- 5. Diagnostic Challenges for the Detection of Emerging Pathogens: A Case Study Involving the Incursion of Pseudomonas syringae pv. actinidiae in New Zealand -- 6. Detection of Human Pathogens on Plants -- 7. Plant Disease Diagnostics For Forensic Applications -- Role of diagnostics in plant disease management -- 8. Results of the EU project QBOL, focusing on DNA barcoding of quarantine organisms, added to an international database (Q-bank) on identification of plant quarantine pathogens and relatives -- 9. On-site testing - moving decision making from the lab to the field -- 10. Virtual Diagnostic Networks: A platform for collaborative diagnostics -- 11. Development and implementation of rapid and specific detection techniques for seed-borne pathogens of leafy vegetable crops -- 12. Diagnosis of plant pathogens and implications for plant health regulation: the European

Food Safety Authority perspective.

Sommario/riassunto

This volume contains the lectures given at the 10th International Congress of Plant Pathology (ICPP 2013) held in Beijing, August 25-30, 2013 on detection and diagnosis of plant pathogens, which represent two fundamental steps in disease management decisions. A quick and reliable detection method in combination with decision support systems is fundamental in order to reduce the damages caused by old and new pathogens, thus permitting to reduce the number of treatments and to contain the potential losses. Molecular methods are available for a number of pathogens and the volume provide good examples of application in different production sectors. Innovative techniques and methods are described to detect and identify different targets: destructive and non-destructive, air- or soil-borne, human- and plant pathogens, in plants or seed-born, native or emerging pathogens, on-site or lab-based. All to support international organizations to secure global trade and agriculture all over the world. This book is aimed at researchers, students in advanced courses and extension services. .