1. Record Nr. UNINA9910673907103321 Autore Pantazi Xanthoula Eirini Titolo Crop Disease Detection Using Remote Sensing Image Analysis / / Xanthoula Eirini Pantazi Basel:,: MDPI - Multidisciplinary Digital Publishing Institute,, 2022 Pubbl/distr/stampa 1 online resource (202 pages) Descrizione fisica 580 Disciplina Soggetti Horticultural crops - Diseases and pests Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto About the Editor -- Preface to "Crop Disease Detection Using Remote Sensing Image Analysis" -- Assessment of Different Object Detectors for the Maturity Level Classification of Broccoli Crops Using UAV Imagery -- Identification and Severity Monitoring of Maize Dwarf Mosaic Virus Infection Based on Hyperspectral Measurements -- Early Detection of Powdery Mildew Disease and Accurate Quantification of Its Severity Using Hyperspectral Images in Wheat -- Research on Polarized Multi-Spectral System and Fusion Algorithm for Remote Sensing of Vegetation Status at Night -- Integrating Spectral Information and Meteorological Data to Monitor Wheat Yellow Rust at a Regional Scale: A Case Study -- A Modified Geometrical Optical Model of Row Crops Considering Multiple Scattering Frame -- A Quantitative Monitoring Method for Determining Maize Lodging in Different Growth Stages --Prediction of the Kiwifruit Decline Syndrome in Diseased Orchards by Remote Sensing -- Practical Recommendations for Hyperspectral and Thermal Proximal Disease Sensing in Potato and Leek Fields --Correction: Xu, M., et al. A Modified Geometrical Optical Model of Row Crops Considering Multiple Scattering Frame. Remote Sensing 2020.

Pest and crop disease threats are often estimated by complex changes in crops and the applied agricultural practices that result mainly from the increasing food demand and climate change at global level. In an attempt to explore high-end and sustainable solutions for both pest and crop disease management, remote sensing technologies have been

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employed, taking advantages of possible changes deriving from relative alterations in the metabolic activity of infected crops which in turn are highly associated to crop spectral reflectance properties. Recent developments applied to high resolution data acquired with remote sensing tools, offer an additional tool which is the opportunity of mapping the infected field areas in the form of patchy land areas or those areas that are susceptible to diseases. This makes easier the discrimination between healthy and diseased crops, providing an additional tool to crop monitoring. The current book brings together recent research work comprising of innovative applications that involve novel remote sensing approaches and their applications oriented to crop disease detection. The book provides an in-depth view of the developments in remote sensing and explores its potential to assess health status in crops.