Record Nr. UNINA9910298296803321 Phenomics: How Next-Generation Phenotyping is Revolutionizing Plant **Titolo** Breeding / / edited by Roberto Fritsche-Neto, Aluízio Borém Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-13677-1 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (145 p.) Disciplina 570 570.28 630 631.52 Soggetti Plant breeding Agriculture Biology—Technique Plant Breeding/Biotechnology **Biological Techniques** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. New Technologies for Phenotyping -- Experimental Designs for Next Nota di contenuto Generation Phenotyping -- Statistical Analysis of Gene Expression and Genomic Data -- Root Phenomics -- Seed Phenomics -- Agronomic Field Trait Phenomics -- Disease Phenomics -- Proteomics and Metabolomics as Large-Scale Phenotyping Tools. Sommario/riassunto This book represents a pioneer initiative to describe the new technologies available for next-generation phenotyping and applied to plant breeding. Over the last several years plant breeding has experienced a true revolution. Phenomics, i.e., high-throughput phenotyping using automation, robotics and remote data collection, is changing the way cultivars are developed. Written in an easy to understand style, this book offers an indispensable reference work for all students, instructors and scientists who are interested in the latest innovative technologies applied to plant breeding.