1. Record Nr. UNINA9910349437903321 Autore Rapela Miguel Angel Titolo Fostering Innovation for Agriculture 4.0 : A Comprehensive Plant Germplasm System / / by Miguel Angel Rapela Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-32493-1 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (122 pages) Disciplina 333.9534 631.523 Agriculture Soggetti Plant breeding Plant genetics Game theory Mass media Law Plant Breeding/Biotechnology Plant Genetics and Genomics Game Theory, Economics, Social and Behav. Sciences IT Law, Media Law, Intellectual Property Tecnologia dels aliments Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1 - Post Malthusian dilemmas in Agriculture 4.0 -- Chapter 2 -Nota di contenuto The regulatory tangle -- Chapter 3 - A comprehensive solution for Agriculture 4.0 -- Chapter 4 - Plant Germplasm Integrated System. The scientific and technical development of any kind of germplasm is Sommario/riassunto regulated by a vast network of treaties, conventions, international agreements, and national and regional legislation. These regulations govern biotechnological innovations in plants and microorganisms,

access to and use of plant genetic resources, and biosafety. This complex mix has made it difficult to arrive at global interpretations,

due to overlaps, gaps, ambiguities, contradictions, and lack of consistency. The big picture is even more complex, as a series of scientific developments - gene editing in particular - have in some cases rendered these international regulatory frameworks obsolete. This book puts forward an innovative approach: a "Comprehensive Plant Germplasm System". The System is a cooperative game theorybased proposal for a binding international convention which would supersede all other conventions, treaties, national and regional legislation covering native varieties and traditional developments, heterogeneous plant varieties, microorganisms, biotechnological inventions, plant genetic resources, and biosafety regulation. In short, it offers a comprehensive framework regarding intellectual property, biosafety, and business regulation and covers all types of germplasm. If applied, the system is expected to yield higher productivity rates in crops and improved food biodiversity, as well as a new paradigm based on the promotion of innovation for "Agriculture 4.0.".