1. Record Nr. UNINA9910557728703321 Autore Cominelli Eleonora Titolo Phytic Acid and Mineral Biofortification Strategies Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020 Descrizione fisica 1 electronic resource (194 p.) Soggetti Research & information: general Biology, life sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Two billion people worldwide, mainly in developing countries, where Sommario/riassunto diets are based on the consumption of staple crops, suffer from mineral deficiencies, particularly for iron and zinc. Mineral biofortification includes different strategies aimed to increase mineral concentration and to improve mineral availability from the diet (mineral bioavailability) in the edible parts of plants, particularly the seeds. Phytic acid is a compound that strongly reduces mineral bioavailability as, being highly negatively charged, it strongly binds cations, acting as a magnet. All the contributions in this book aim to describe new results, review the literature, and comment on some of the economic and sociological aspects concerning mineral biofortification research. A number of contributions are related to the study of mineral transport, seed accumulation, and approaches to increase seed micronutrient

low phytic acid mutants.

concentration. The remaining ones are mainly focused on the study of