1. Record Nr. UNINA9910482956803321

Titolo	Breeding for enhanced nutrition and bio-active compounds in food legumes / / edited by Debjyoti Sen Gupta, Sanjeev Gupta, Jitendra Kumar
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-59215-4
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (VIII, 267 p. 10 illus., 6 illus. in color.)
Disciplina	378.16913094248
Soggetti	Legumes - Genetics Legumes - Breeding Legumes - Biotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Breeding for enhanced nutritional status: Retrospect and Prospect -- Quality improvement in chickpea -- Breeding for quality improvement in pigeon pea -- Bio-fortification in lentil -- Breeding for low phytates and oligosaccharides in mung bean and black gram -- Common bean quality improvement -- Breeding for reduced trypsin inhibitor in peas -- Breeding for low ODAP content in Lathyrus -- Breeding for high protein content in cowpea -- Role of animal models in nutrition resource in food legumes -- Pulses for improved milling and baking -- Bio-actives and nutraceuticals in lentil.
Sommario/riassunto	More than 20 million childhood deaths occur every year due to the micronutrient deficiency and diet-related non-communicable diseases (cardiovascular diseases, cancers, chronic respiratory diseases and diabetes). The United Nations (UN) recently announced that the increase in chronic, non-communicable diseases has resulted in 36 million deaths around the world annually, claiming more lives than all other causes combined. These chronic diseases are not isolated to developed countries and are even more pronounced in the developing world. Such chronic illnesses have caused far more deaths than infectious diseases throughout the world (except Africa) in recent years.

Therefore, enrichment of micronutrients in staple food crops is of paramount importance for the nutritional security in our world. Biofortication is the development of micronutrient- and/or vitamin-rich crops using traditional crop improvement practices as well as modern biotechnology tools. It is a more sustainable and cost effective method than food supplementation, fortification and diet diversification. This work consolidates available information on the different aspects of breeding for improved nutrition of pulses. An overview of entire pulses based on their nutritional profile is given so that audience can find the desired information easily. Food legumes are the active ingredients in many gluten-free food products and there is a continuous rise of the use of pulses flour in milling and baking processes. Our book sheds light on recent efforts and the underlying constraints of meeting the public demand. We believe this work provides the basic information for anyone interested in biofortification and stimulate further research to meet this unique challenge.

2. Record Nr. UNISA996466521203316

Autore	Ruzicka Michael
Titolo	Electrorheological Fluids: Modeling and Mathematical Theory [[electronic resource] /] / by Michael Ruzicka
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2000
ISBN	3-540-44427-0
Edizione	[1st ed. 2000.]
Descrizione fisica	1 online resource (XIV, 178 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1748
Classificazione	76W05 76A02 76D03
Disciplina	532.051015118
Soggetti	Fluid mechanics Fluids Partial differential equations Engineering Fluid Dynamics Fluid- and Aerodynamics Partial Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (pages 165-173) and index.
Sommario/riassunto	This is the first book to present a model, based on rational mechanics of electrorheological fluids, that takes into account the complex interactions between the electromagnetic fields and the moving liquid. Several constitutive relations for the Cauchy stress tensor are discussed. The main part of the book is devoted to a mathematical investigation of a model possessing shear-dependent viscosities, proving the existence and uniqueness of weak and strong solutions for the steady and the unsteady case. The PDS systems investigated possess so-called non-standard growth conditions. Existence results for elliptic systems with non-standard growth conditions and with a nontrivial nonlinear r.h.s. and the first ever results for parabolic systems with a non-standard growth conditions are given for the first time. Written for advanced graduate students, as well as for researchers in the field, the discussion of both the modeling and the mathematics is self-contained.