



foods

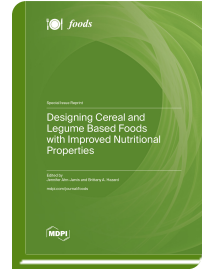


Special Issue Reprint

Designing Cereal and Legume Based Foods with Improved Nutritional Properties

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The emerging popularity of sustainable, plant-based diets presents new challenges in the delivery of healthy plant-based and functional food to consumers. Recent advances in crop biotechnology and food processing have provided innovative opportunities to enhance the nutritional quality of foods without compromising agronomic attributes such as crop yield. For instance, cereals and legumes with greater resistance to starch amylolysis have been developed and are desirable in mediating blood glucose and improving gut health. Moreover, new functional attributes could minimize the cooking burden commonly associated with whole-grain cereal and legume preparation and improve organoleptic qualities of plant-based foods. Integrated approaches that consider both the development of new raw materials through plant breeding and subsequent processing methodology are essential to develop functional foods and optimize nutrient bioaccessibility and bioavailability. This Special Issue features original research papers that will advance our knowledge and strategies for designing new cereal- and legume-based foods for improving nutrition and health. Special interests include nutritional trait development in crops using recent advances in plant biotechnology and breeding, innovative processing strategies for modulating nutrient bioaccessibility and bioavailability, physicochemical characterization and nutritional evaluation of novel raw ingredients and foods, functional food development, and dietary intervention studies aimed at cereal- or legume-based foods for health.



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