

Special Issue

Grain-Based Foods: Advancing Technology and Applications in Staple Foods

Message from the Guest Editors

Grain-based foods constitute the foundation of global dietary patterns, yet the sector faces mounting pressure to balance nutritional density, production sustainability, and consumer acceptability. Traditional processing methods often compromise the bioavailability of bioactive compounds or rely on ingredients that conflict with modern "clean label" trends. Recent technological advancements—ranging from non-thermal processing and precision fermentation to the utilization of grain by-products—offer unprecedented opportunities to transform staple foods into functional, high-quality products. This Special Issue aims to explore the interface between emerging processing technologies and grain–matrix interactions. We invite contributions that address the structural modifications of starches and proteins, the application of novel biotechnological tools for flavor and texture enhancement, and the development of sustainable formulations using ancient grains or milling by-products. By bridging fundamental food chemistry with innovative industrial applications, this issue seeks to define the next generation of healthier and more sustainable staple foods.

Guest Editors

Dr. Junjie Xing
Dr. Zhen Yang
Dr. Yipeng Bai

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Foods
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
foods@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Foods (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, *Foods* has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

Editor-in-Chief

Prof. Dr. Arun K. Bhunia

1. Department of Food Science, Purdue University, West Lafayette, IN 47907, USA

2. Department of Comparative Pathobiology, Purdue University, West Lafayette, IN 47907, USA

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