



*foods*



an Open Access Journal by MDPI

## Food Legumes: Physicochemical and Nutritional Properties

Guest Editor:

**Prof. Dr. Ryszard Amarowicz**

Institute of Animal Reproduction  
and Food Research, Polish  
Academy of Sciences, Olsztyn,  
Poland

Deadline for manuscript  
submissions:

**closed (30 June 2018)**

### Message from the Guest Editor

Legumes are an important source of nutrients (proteins, carbohydrates, water soluble vitamins, minerals). They play important role in chronic disease prevention. The beneficial effects of legumes are attributed to the presence of legume seeds starch with a low glycemic index, dietary fiber (soluble and insoluble), several classes of phenolic compounds, and oligosaccharides. Phenolic compounds of legumes possess strong antioxidant and antimicrobial activities. Oligosaccharides, acting as prebiotics, modify intestinal microbiota.

Some of the bioactive compounds present in legumes (e.g., trypsin inhibitors, condensed tannins, lectins, phytates) also exhibit antinutritional effects—decreased protein digestibility and availability of mineral compounds. Technological processes (non-thermal and thermal processing, hydrolysis, fractionation) can modify the functional properties (emulsifying activity and stability, foaming properties, water holding capacity) of legumes and legume products, as well as modify the activity of bioactive compounds present in legume seeds.

Prof. Ryszard Amarowicz

*Guest Editor*



[mdpi.com/si/11858](https://mdpi.com/si/11858)

# Special Issue



*foods*



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Arun K. Bhunia**

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

2. Department of Comparative  
Pathobiology (Courtesy), Purdue  
University, West Lafayette, IN,  
USA

## 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [PMC](#), [FSTA](#), [AGRIS](#), [PubAg](#), and [other databases](#).

**Journal Rank:** JCR - Q1 (*Food Science & Technology*) / CiteScore - Q1 (*Health Professions (miscellaneous)*)

## Contact Us

---

*Foods* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/foods](http://mdpi.com/journal/foods)  
[foods@mdpi.com](mailto:foods@mdpi.com)  
X@Foods\_MDPI