Special Issue

Factors Governing the Structural and Biochemical Breakdown of Starch-Rich Plant Tissues During Digestion

Message from the Guest Editors

Starch is the main biopolymeric constituent of the plant tissue of cereals, legumes, tubers, roots, and unripe fruits. These starchy sources can be cooked directly by diverse processes (extrusion, baking, and/or boiling) or, like flour, can be processed and used to prepare baked goods, pasta, snacks, breakfast cereals, etc. Starch represents the primary carbohydrate source in human nutrition and the caloric supply. The breakdown of the starch in the gut and the fermentation in the large intestine depend on the following diverse factors: gelatinization (disorganization); the presence of the residual starch structure after thermal processing; the presence of proteins, lipids, and polyphenols (or other bioactive compounds) that can produce interactions with starch chains and reduce the starch digestion rate; and the fermentation of undigestible starches in the colon along with the production of different health-impacting metabolites. This Special Issue aims to collect original contributions regarding the advances in starch digestion and fermentation rate of starchy sources for purposes of manufacturing functional foodstuffs.

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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.

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