

Special Issue

Research on the Mechanisms and Functional Properties of Crop Starch Synthesis

Message from the Guest Editors

Starch consists of two major polymers: nearly linear amylose and frequently branched amylopectin, glucans that account for approximately 15–35% and 65–85%, respectively, of total starch. The synthesis and functional characteristics of starch affect the yield and quality of crops. Up to now, the basic process of starch synthesis has been established using biochemical, genetic, and molecular biological methods. However, in spite of numerous past investigations, the mechanisms and functional properties of crop starch synthesis are not fully understood. This Special Issue aims to publish research or review articles dealing with innovative and promising strategies to strengthen our understanding of the complexities of starch metabolism toward promoting the development of starch industrial and agricultural applications. The topics of interest include but are not limited to:

- Effect of environment on the starch synthesis and physicochemical properties
- Regulatory factors controlling the starch synthesis
- Enzyme–enzyme interactions
- Structural and functional characteristics of crop starch
- Cloning of genes related to starch synthesis

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