

Special Issue

Genetic and Environmental Factors Affecting the Grain Quality and Yield of Cereals

Message from the Guest Editor

Cereals contribute a substantial part of the world's plant-derived food production and comprise a majority of the crops that are harvested. In fact, FAO statistics show that in 2019, the production of primary crops was 9.4 billion tons, and four crops account for about half of global primary crop production: sugar cane, maize, wheat, and rice. In addition, according to the Foreign Agricultural Service/USDA, the preliminary world production in 2019 of maize, wheat, and rice-paddy was estimated at around 1148, 765, and 755 million tons, respectively. Given the importance of cereals as staple foods worldwide, one of the major challenges that plant breeders/producers are currently facing is to increase cereal grain production while improving grain quality, which has important implications for the nutritional quality of foods. Considering the economic and social importance of cereal crops in the context of global climate changes, this Special Issue will focus on the effects and interactions of genetic and environmental factors (drought, elevated temperatures, CO₂ concentration, etc.) that can affect the grain qualities and/or productivity of cereals.

Guest Editor

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Deadline for manuscript submissions

closed (20 June 2023)



Plants

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Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, and conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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