Special Issue

Integrated Strategies for Enhancing Lodging Resistance and Yield Performance in Cereal Crops

Message from the Guest Editors

The conflict between preventing cereal lodging and obtaining high yields is a prevailing challenge that besets modern agriculture. Lodging directly induces yield losses, reduces the quality of grains and hinders mechanized harvesting. With the growing use of high-yield varieties, higher planting densities and increased application of fertilizer, the risk of lodging has become greater. Furthermore, due to the intensification of climate change, extreme weather conditions such as strong winds and rainfall occur more frequently, further impacting the efficacy of high-yield cultivation models. This Special Issue seeks to address these issues. We aim to highlight integrated, sustainable approaches that bridge crop physiology, genetics, agronomy practice, and precision technologies to establish efficient, lodging-resistant cultivation technology that can be used to acquire high yields. We encourage to contribute studies on high yield and lodging traits, including ideal plant architecture, optimized agronomic practices (e.g., fertilization, irrigation, growth regulators), and advanced tools like sensor-based monitoring or AI-driven modelling.

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