Special Issue

Seed Enhancement Strategies for Resilient and Sustainable Crop Production

Message from the Guest Editors

Seed enhancement technologies have emerged as crucial tools for improving crop resilience and productivity in the face of a changing climate and associated challenges, including heat and water stress, pest and disease pressures, soil degradation, and reduced yields and nutritional quality, with significant implications for global food security and the sustainability of livelihoods. Despite the wide potential of many of these seed enhancement treatments, such as priming, film coating/pelleting, and biological treatments, their effectiveness is limited by several challenges. One major bottleneck is that different species, and even specific genotypes, may respond uniquely, limiting the general applicability of standardised protocols. What is beneficial for one species may be neutral or even detrimental for another. Therefore, bespoke protocols and thorough physiological evaluations are warranted to overcome these challenges. This Special Issue aims to showcase the latest research and developments in seed enhancement technologies, including priming and biological treatments, highlighting their potential to enhance crop production and resilience efficiently.

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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, 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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