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Interaction between Sugarcane and Environmental Stressors: From Identification to Molecular Mechanism

Guest Editor:

Prof. Dr. San-Ji Gao

National Engineering Research
Center for Sugarcane, Fujian
Agriculture and Forestry
University, Fuzhou 350002, China

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Message from the Guest Editor

An increase in the vulnerability of crops to a wide range of abiotic and biotic stresses can have a marked influence on the productivity of major crops, especially sugarcane, thereby counteracting the potential to achieve the goal of “ZERO HUNGER” proposed by the FAO-UN. To cope with various stresses, plants have evolved complex rapid responses, but crop efficiency is still severely hampered. The prevailing, alarming climate change scenario and future changing weather provide challenges for the researchers to better understand plant responses thus ultimately enhancing crop yield.

Over the past decade, significant progress has been made in deciphering the roles of gene targets and signaling pathways that are involved in stress responses. However, investigations are still required to explore the numerous features of stress responses in sugarcane to create climate-resilient cultivars by balancing the plant growth and defense. Therefore, this Special Issue will highlight the recent advances in the utilization of different conventional and modern biotechnological strategies to better understand the stress adaptation and tolerance mechanisms in sugarcane.



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Special Issue



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Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

Message from the Editor-in-Chief

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Plants Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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