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PRAGMATIC ROLE OF MICROBIAL BIOSTIMULANTS IN THE MITIGATION OF ABIOTIC STRESSES IN CROPS**Sajid Ali***Yeungnam University, South Korea*

The ever-increasing global population is expected to be approximately 9.7 billion by 2050, which will require 50% more food from the present scenario. Therefore, it is essential to mitigate the adverse effects of environmental stresses, enhance agriculture productivity, and produce sustainable food for the global population. Global food security can be achieved through rigorous agricultural security because agriculture is the basis of food, whereas, abiotic stresses are leading to excessive crop yield penalties and are the main threat to worldwide agriculture. It is essential to equip crop plants with multi-stress tolerance to mitigate the adverse effects of abiotic stressors and meet the demands of the increasing worldwide population. Agricultural practices worldwide are moving toward safer, sustainable, and environmentally friendly approaches because the continuous use of agricultural chemicals is a serious threat to human health and the environment. The association of plants and symbiotic microorganisms are involved in key functions at the ecosystem and plant level, and the use of microbial plant biostimulants (MPBs) is a sustainable strategy to augment plant growth and productivity, even under abiotic stress conditions. Various microorganisms can be used as MPBs to enhance plant growth and produce a progressive and reproducible effect on crop plants. The present study aimed to report the current knowledge on the use of MPBs, discuss diversity and characteristics of MPBs and deliver a meticulous analysis on the possible application of MPBs in the mitigation of abiotic stresses in crops.

Biography

Sajid Ali has completed his Ph.D. at the age of 30 years from the Center of Biotechnology and Microbiology (COBAM), University of Peshawar and Postdoctoral studies from Kyungpook National University (KNU), School of Applied Biosciences. He is an International Research Professor in the Department of Horticulture and Life Science, Yeungnam University, Republic of Korea. He has published more than 20 papers in reputed journals and has been serving as a reviewer and editorial board member of reputed science journals.