Special Issue

Plant Pathogens in a Global Change Context

Message from the Guest Editors

Plant diseases caused by fungi, bacteria, phytoplasmas, viruses and nematodes lead to many billions of dollars' worth of direct and indirect losses every year. Plant pathogens threaten the maintenance of the quality and abundance of food, feed and fiber globally. Over the past 100 years, agronomic practices and the use of chemical fertilizers and pesticides have supported highly substantial improvements in crop productivity and quality. However, the strict regulations on chemical pesticide use, and the public pressure to protect the environment by significantly reducing the use of chemicals on agriculture, make plant protection an important duty and difficulty mission.

Based on the the knowledge on plant resistance, in order to reduce and prevent plant diseases, a greater understanding of the physiology, biochemistry, transcriptomics, and genomics of pathogens needs to be generated to clarify the mechanisms of virulence and host adaption, linking the molecular basis for pathogenicity to plant resistance, to generate a full scenario of global food security and global changes.

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"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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