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Diagnosis and Control of Plant Bacterial Diseases

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Message from the Guest Editor

Plant pathogenic bacteria represent a major constraint to food production. The economic importance of these pathogens is due to several factors, including the ability to multiply to very high numbers, leading to sudden large and economically important outbreaks.

Rapid and accurate methods of detection and identification would allow for preventing and/or to better control such outbreaks. A number of molecular tools have recently been developed for the identification of several plant pathogenic bacteria. However, not all of those tools might be sensitive or specific enough for the early accurate detection of a disease.

Most of the commercial products available for the control of bacterial diseases are either antibiotic-type products or heavy metals; they involve the risk of selecting pathogens resistat to these products. For some bacterial diseases, a few biological control agents or elicitors are also available, but their appropriate use requires an understanding of plant physiology and epidemiology, which is not always available. Novel methods of control, such as quorum sensing interference and the disruption of biofilm formation, have yet to be widely studied.

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Message from the Editor-in-Chief

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