Research Article

Molecular Detection of *Ralstonia solanacearum* from Soil and Tomato Plant under Glass House and Field Conditions

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Abstract

The aim of the present study was to detect and identify *Ralstonia solanacearum* by DNA-based methods which provide high sensitivity and specificity. In the present study PCR based detection of bacterial wilt pathogen from soil, infected and asymptomatic tomato plant has been described under glass house and field conditions. The specific primers RS-F-759 and RS-R-760 was successfully used to detect *R. solanacearum*, as a result 281-bp DNA fragment was obtained confirming the presence of bacteria. The PCR-based detection method using *R. solanacearum* specific primer offers a rapid and sensitive method for unambiguous detection of this pathogen in soil, infected plant material and asymptomatic tomato plant material. This study also helps in early detection of bacteria from asymptomatic plant material under glass house conditions which will help in controlling disease in order to minimize yield loss.

Key words: Asymptomatic tomato plant**,** PCR based methods, *Ralstonia solanacearum*, RS-F-759, RS-R-760

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