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COMPARISION AND DEVELOPMENT OF NEW METHOD FOR DETECTION OF *Erwinia amylovora* IN LATENT INFECTION PLANT MATERIAL *

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Abstract

Fire blight disease caused by *Erwinia amylovora* is deemed to be one of the most important and devastating disease affecting in Rosacea. Sensitive and rapid detection protocols are important tools in disease control. In this research sensitivity and specificity of four different detection methods with and with out enrichment were evaluated. 1CFU/ml *E. amylovora* could be detected by selective culture method in infected plant extract but not in latent infections. However, enrichment was increased the susceptibility of this method to detect *E. amylovora* in latent infections. Lateral flow immunochromatography detect 10^5 CFU/ml bacteria in infected plant extract and enrichment made this method to detect latent infections and increased the sensitivity to detect 1CFU/ml bacteria. Using specific primers, the standard and nested PCR were detected 1CFU/ml bacteria in infected plant material .

Keywords:*Erwinia amylovora*, Detection, PCR, Enrichment, Culture, Lateral flow immunochromatography.

See Persian text for figures and tables (Pages ۴۷۱-۴۷۴).

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