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Design and testing of duplex-PCR primers for detection of bacterial spot of tomato

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This study presents development of duplex-PCR assay for specific detection of plant pathogenic bacteria of *Xanthomonas* genus causing bacterial spot of tomato and pepper. PCR primers for differentiation of *X. euvesicatoria* and *X. vesicatoria* were developed based on the DNA sequences of bacterial type strains. Primer pairs were designed and subsequently thoroughly tested and optimized for parallel detection of the bacteria. Specificity of the primers was tested on a large complex of bacterial strains pathogenic to tomato, pepper and related crops. Following the described protocol *X. euvesicatoria* and *X. vesicatoria* can be quickly and reliably identified in a single duplex-PCR assay.

Biography

Dagmar Stehlíková is a Molecular Geneticist with specialization on detection phytopathogenic bacteria. She is most interested in quarantine bacteria *Xanthomonas, Ralstonia, Burkholderia* etc. Techniques that she is expert in molecular methods are loop-mediated isothermal amplification, reatime PCR and multipex PCR.

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