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The pathogenicity of *Pseudomonas syringae* on various species of fruit trees and other related hosts

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Pseudomonas syringae is an important pathogen to a wide range of plant species including various fruit crops. Bacterial canker of fruit trees is caused by two *Pseudomonas syringae* pathovars with different host range. *Pseudomonas syringae* pv. *syringae* can cause canker on any commercially grown fruit species while cherries and plums are predominantly infected by *Pseudomonas syringae* pv. *morsprunorum*. Twenty-four isolates of *Pseudomonas syringae* originating from various diseased hosts were selected to characterize their pathogenicity on various fruit tree species and related hosts. These isolates were previously identified as *Pseudomonas syringae* using biochemical and phenotypic characterization by LOPAT and GATTa tests. In adition, 16S sequencing was performed to confirm identification. The pathogenicity of the isolates was tested by inoculation of bacteria on immature fruitlets of 14 hosts and potted plants of four hosts. The tested isolates varied strongly in their pathogenicity depending on the inoculated host species. Several isolates showed strong aggressiveness to more than one host species. Pathogenicity tests on plants of more host species are currently in the progress.

Keywords: bacteria, diseases, hosts, symptoms

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